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The JOURNAL
of the
Florida Medical Association, Inc.

OWNED AND PUBLISHED BY THE FLORIDA MEDICAL ASSOCIATION, INC.

VOLUME XXVII
No. 2

Jacksonville, Florida, August, 1940

Yearly Subscription, $3.00
Single Copy, 30c

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THE JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION
PUBLISHED MONTHLY

Volume XXVII | Jacksonville, Florida, August, 1940 | Number 2

THE MEDICAL MAN AND THE FLORIDA WORKMEN'S COMPENSATION ACT (1935)

E. LAURENCE SCOTT, M. D.
Ocala

Benefit to employees, in certain occupations and industry, is now an almost universal business custom. Despite the variations in the construction of the different States' laws, they all have one common aim, pecuniary reparation for injury sustained and time lost in occupation, when such injury and time lost are what we call "in line of duty."

We must admit a strong drift in favor of the employed, this drift being encouraged by the phrase, a popular and catchy one, having its origin in Scripture. I respectfully refer to "the Abundant Life."

Legally speaking, the Florida Workmen's Compensation Act, in which form it may be cited, was an Act of the Legislature of 1935, and amended by the Legislature in 1937. I shall speak of the Act in its present form.

The Act in most part is a composite of the proven workable compensation laws of several states, particularly those longer experienced in compensation, but all basically concerned with the same problems in employment. The intent of the Act, or law, is that in all private employments in which three or more persons are regularly employed in the same business or establishment, except domestic service in private homes, agricultural and horticultural farm labor, etc., all set out in the law, each employee shall be paid certain monetary benefits for time lost and for injury, if disabling, and shall receive proper medical and hospital care during the period necessary to recover in order that he may again earn a livelihood. In substance, then, it is a law to regulate physical maladjustments among employees, when an accident is the cause at fault, to preserve as nearly as possible the employee's regularity of work and to contribute to his dependents' economic security during the treatment and loss of time period.

Read before the Sixty-Seventh Annual Meeting of the Florida Medical Association, held at Tampa, April 29, 30, and May 1, 1940.

The Florida Workmen's Compensation Act is administered by The Florida Industrial Commission, a Commission appointed by the Governor of the state (the terms of office being for varying periods), and consisting of a chairman and two other members. This Commission serves as a tribunal in matters before it, but it has no powers other than those set out in the Act. It is both judge and jury, all within the meaning of the Act but, unfortunately, as experience has shown us lately, by proper appeal to the Circuit Court, the Commission's decision can be set aside. It might be more plainly stated by saying that all Commission orders must be in accordance with law generally, in order that the constitutional rights of employees may be preserved.

This information is given to show why there may be a change in a doctor's report, his estimates or his conclusions of the medical phase of a patient he may handle under the Compensation law.

In the classification of injuries, we accept the language of the law when it says: "the term injury means personal injury or death by accident arising out of and in the course of employment, and such diseases or infection as naturally or unavoidably result from such injury." By using the term "accident," the law defines it in this manner: "Accident shall mean only an unexpected or unusual event, happening suddenly. A mental or nervous injury due to fright or excitement only or disability or death due to accidental acceleration or aggravation of a venereal disease or of a disease due to the habitual use of alcohol or narcotic drugs, shall be deemed not to be an injury arising out of employment * * *." The relation of aggravation and acceleration as it bears on compensation is then given.

The definition of "accident," as given above, does not altogether follow our medical ideas of accidents; it is a difficult definition to understand fully. The opinions we hold regarding aggravation and acceleration sometimes do not fit into this definition but, as it is a part of the law, we accept it.

There is some general confusion on the question of Workmen's Compensation and Unemployment Compensation. Workmen's compensation provides benefits in connection with in-

dustrial accidents only, while Unemployment Compensation is a benefit program for those qualified as employees under the unemployment law, who are not injured but merely unemployed and entitled to receive certain monetary relief in accordance with the Unemployment Compensation law.

Medical men are not concerned with unemployment benefits other than where it involves medical certificates for illness as a cause for absence from duty. It is quite different, however, in the case of Workmen's Compensation for herein the medical man is the key to the situation, so to speak. Without a physician's or surgeon's report the law could not function, since benefits can be obtained only on the medical man's certificate in the form of a report of the type and extent of the injury. Disability awards can be made only on a medical man's opinion of the particular case, and if the disability is a prolonged one, it is usual to accept the opinion of the medical man handling the case.

The term "qualified physician or surgeon" is printed in the Act, but let us hope that in the near future the Legislature will amend those words to the effect that "qualified" will mean a medical man who has been qualified according to standards used by the State Board of Medical Examiners for Florida, or a like Board in another state when consultation by a nonresident medical man is required. We are normally expert witnesses when we handle the injured or sick, and we should maintain that standard for ourselves.

The word "coerce" appears in the law as follows: "It shall be unlawful for any employer or representative of any insurance company or insurer to coerce or attempt to coerce a sick or injured employee in the selection of a physician or surgeon or other attendance or remedial treatment, nursing or hospital care, or any other service that the sick or injured employee may require." It goes further and sets the fine for violation.

Coercion is a form of restraint, though we do not always coerce when we restrain. This inclusion of the word "coerce" in the law could possibly impair proper medical care and change the experience tables of the insurance companies or carriers in calculating their costs of medical care to the injured in employment. The final rates for compensation insurance reflect medical costs, and the costs are finally passed to the buyer, or employer, who in every instance in compensation practice is the party giving you the opportunity of handling the case. A boomerang always comes back and we have to duck to avoid being hit some times.

In disputes that may arise between the employer and the employee as to which physician or surgeon is acceptable, the dispute must go to the Industrial Commission within twenty-four hours of the injury, unless agreeably settled between the two parties to the dispute. The Industrial Commission is given power to adjudge what is expedient and best, and its decision must be abided by. In my opinion, the word "coerce" in the Workmen's Compensation Act can become a two-edged sword.

Is it certain that the medical man has a clear idea of what constitutes a claim under the law? A safe rule, to avoid any pitfall, is to ascertain when you first handle the patient or give medical advice that the injured employee was in line of duty when the accident happened. Line of duty in business and industry is a broad term, and covers the assigned working hours of the employee and the assigned duties, rather than the duties usual to his occupation. The reason this is mentioned is probably obvious as the law affects all types of employment and labor. Be sure your patient was injured while on his employer's payroll, and that he was sane and sober when the accident happened. A sympathetic foreman might refer to you an injured employee and without proper knowledge of the law, your service fee be rejected if the employee was not on duty or not on the payroll when injured; or, his injury may even be excluded by the law, under certain circumstances.

The above is for your protection, and when a doubt arises in your mind, you are entitled to advice as to whether your services will be paid for in the expected manner.

We understand the terms "permanent total disability," "temporary total disability," "permanent partial disability," "temporary partial disability," and it is useless to more than mention them. However, the expressions, "total loss of use," and "partial loss of use," do produce confusion at times. For "disfigurement" in head and facial injury, if serious, an award can legally be set up by the Industrial Commission as reparation. The printed Act, as amended in 1937, contains guide tables for disability es-

timates and awards and should be a part of every physician's working library. The Florida Industrial Commission, whose address is Tallahassee, will furnish copies of the Act on request, and I advise that you secure a copy.

The obligation that the physician or surgeon owes the employer is the same obligation that exists if the employee came to the physician as a private patient. The fact that an insurance company or a setup for the protection of the employer is involved is no good reason for change in the physician's attitude to the employer, even though his dealings are principally with the employed. Indifference to the employer's welfare will, as I have said before, possibly increase his costs for the protection and directly call his attention to this point. The employer directs his injured employee to the physician just as he would consult his physician himself, and the medical men should keep this in mind.

I trust you understand that when compensation is referred to we mean that person or persons, that company or fund qualified under the law to assume the liability for employment injury and sickness. We find the terms, "carrier," and "self insurer" then to relate only to those employers who have qualified and in so doing are responsible for medical costs.

I would like to give you the outline found in *Principles and Practice of Physical Therapy,* in the chapter by Dr. Harry Mock of Chicago. It occurs to me that it covers well the obligation of the medical men to the injured employee. I quote him as follows:

1. Prevention, under subheading, "By analytic study of the disease or accident to prevent a similar occurrence to other individuals."
2. Treatment, under subheading, "The best possible treatment directed toward the earliest possible recovery with the greatest possible functional restoration."
3. Convalescent care, subheading, "The early removal of the patient from hospital influences."
4. Placement at suitable employment, subheading, "Light occupations in the industry until such time as the patient can return to his regular position."
5. "Training, for new vocation when disability unfits the patient for the usual occupation."
6. "Medical follow-up to see that rehabilitation is completed and that it so remains."

In attempting to define The Workmen's Compensation Act it was stated that the law was directed to employers only, broadly speaking, with exceptions noted. Therefore the law has no specific language to the medical man but rather invites him to participate in the benefits accruing under the Act, in his professional capacity. The language used is plain and to the point. It gives the physician or surgeon latitude to carry out his principles of practice. It sets up provision for hospital and special care. It includes autopsy. It covers certain hernias and tabulates disability. Contingencies and unusual happenings are provided for in the implications of the Act, and the Industrial Commission is empowered to interpret the law as broadly as is necessary to make it function as the Legislature intended it should. In addition, the law demands that the medical costs be paid, when charges are fair and reasonable and faithful service has been rendered.

The principle of Workmen's Compensation is not new, and the changes we find are not changes in principle but in application to meet economic conditions affecting the employee. Granting that it is an imposed penalty on business, the benefits going to the employed, such laws are almost universal at the present time, and have been subjected to close scrutiny and legal tests, sufficient to have them accepted as a modern plan in business life.

Florida's Workmen's Compensation Act bears the date of 1935, whereas many states have used the program satisfactorily for many years. Employers' experiences with the law improve as time goes on, though it is the general feeling with the compensation insurance companies that it is not usually a profitable business for them. The Insurance Commissioner of Florida demands that all casualty companies doing business in the state must share a part in covering the compensation risks falling under the purview of the law, and has a plan of allocation of the risks, through the Industrial Commission, in case the employer is unable to find a voluntary taker for his insurance.

On the other hand, as the employer's experience with compensation grows, many of his first objections are overcome. The old rule of the "law of averages," often crops up, and the employer is comforted, when a death claim arises in his establishment as a result of accident, in realizing that he has paid a premium to an insurance company to be relieved of all detail thereof.

Compensation is now being applied for by many employers in the exempted groups, which in itself is an answer in favor of the law. In all matters of insurance we seek to prevent loss through misfortune, and the trend of the times,

irrespective of our individual views, is a compelling force in the different employments. It is an economically sound plan in American living, with the changes that do come about by legislative amendments as the situations require.

Again, in the application of the law the medical man and the hospital is relieved of treating the injured employee as a charity patient. Financial responsibility is automatically set up under the law, and the medical man can treat the injured employee as if he were a private patient, always however, with the thought in mind that his individual cooperation will do much towards creating good will between the employer, the employed and the law.

Some may look on compensation questions as a form of socialized medicine. I think they will find themselves in error if they do so, since the underlying principle in compensation insurance is that the employer pays a certain premium for protection against financial loss resulting from accidents to his employees. It is a sound business, whereas socialized medicine implies that all who *can* pay *must* pay for all those who *can not* or *will not* pay.

The writer has been fortunate enough to have seen both sides of Workmen's Compensation laws in operation—in Alabama as an active orthopedic surgeon for thirty years, and for the past four years in Florida in the insurance business. A close contact has been maintained with the medical profession during the four years in the insurance business, by hospital staff appointment and through membership in local and state medical societies. It is sometimes quite difficult to put aside the purely medical aspect in an interpretation of the law, and sometimes it has been highly enlightening to know what business really thinks of doctors in general. I have felt like a small boy eavesdropping.

I might say that business has a wholesome respect for medicine and its practitioners, and I know of no other group of men whose opinions are accepted on face value. At times I have been almost overcome with the feeling of a medical missionary in a heathen land, but I trust I have given you some ideas in regard to the Florida Workmen's Compensation Act that will enable you to pattern your views in such manner that what you do will improve the law where improvement is found to be needed.

I will not bore you with a recitation of personal experiences, as you might have suspected from the paper's outline. May I conclude by saying that I think the Florida Workmen's Compensation Act is a just and workably fair law, and though it mentions "benefits" to "employees," hidden between its lines, and in doctors' collection accounts, "benefits" accrue to the medical man as well as to those directly named in the law.

DISCUSSION

Dr. T. H. Bates, Lake City:

Doctor Scott very kindly asked me to say something about the matter he has discussed with you. It has been my privilege, as a member of the advisory council of the Industrial Commission of the State of Florida, to sit in with that commission at times and hear some of the discussions.

I think that the law Doctor Scott has discussed with you is one of the very best workmen's compensation laws that exists in any of the states. The biggest trouble we have found comes from a misunderstanding of the physicians and the general public as to the workmen's compensation law and unemployment compensation law. These are two distinct and separate laws that the Industrial Commission has to administer.

There are some things about the Workmen's Compensation law that perhaps can be improved upon. I have in mind a particular reference to industrial diseases or diseases that may be of industrial origin. As the law stands a man must have an accident or an accident must play a part in the production of his disability before he really becomes a beneficiary. Another thing that perhaps will have to be changed or should be changed is the bringing under the law of some of the present exempted employments.

These are things that it will take time to develop, and will probably come before these men who have the making of the law. Certainly it will provide for physicians and hospitals a protection that we have not had heretofore. It provides for the payment of just medical bills, and I am sure that many men are being paid for services rendered now, who formerly had to pocket a loss.

I think Doctor Scott has brought us a very interesting discussion of a law that is to protect the services of many men in the State of Florida.

Question from the floor:

I would like to ask Doctor Scott to interpret this law as it applies to piece-workers doing work such as logging.

Dr. Sarah P. White, Tallahassee:

I should like to ask the doctor what, if any, is the precedent established in a case like this: A patient who has a permanent *partial* disability is being carried by the insurance company upon the basis of a weekly compensation that fits his case. What is the future of that patient? He obviously cannot ever be insured by any other insurance company. He can now earn something to add to his partial compensation which must support himself, his wife and baby. But what about the future of that man if he becomes ill with some intercurrent disease? What about his family? Does the Commission increase compensation when there is increasing need for such,—when he, as he obviously must do at an earlier age than other men, slips into permanent *total* disability?

Dr. E. Laurence Scott, Ocala (Concluding):

If I understood the question just asked, it was about piece work. Irrespective of what type of piece work it is, the insurance company checks the monthly payroll and charges the employer so much for every dime expended on the payroll. And the man working at that time and receiving that dime comes under the benefits of that Act, if he was even doing piece work. The amount of salary on the payroll is charged for. However, all employers do not cover the particular type of work that you mentioned, logging. That can be avoided as in every law there is some way to circumvent it. There are cases existing where the individuals are allowed to do their own logging under contracts which fall under exempted parts of the Act. Then if the man is injured it is his own loss.

As to the second question: This act definitely says that so many weeks of payment are to be made for certain types of injury. It does not mean that the man is going to be a ward of the insurance company from the time of the accident on. The law sets out a certain definite number of weeks that that injury or disability exists and weekly payments are made. If the injury is permanent, such as loss of an arm, then he will be paid off in a lump sum and his case definitely closed. It does not run on for an indefinite time or the rest of his life. It is limited. Cases that call for a settlement are definitely stated, and provided for in the Act.

Printed copies of the Act will be left at the desk and I would like for everyone interested to have a copy. It is very plain when you read it.

IMPETIGO CONTAGIOSA COMPLICATED BY HEMORRHAGIC NEPHRITIS

CASE REPORT

HENRY E. PALMER, M. D.
Tallahassee

My purpose in presenting this paper is to impress upon the medical profession the grave and dangerous sequellae that may follow an attack of impetigo contagiosa. Heretofore we have paid very little attention to this condition; in fact it has been considered so harmless as to require very little thought or attention. I am safe in stating that at least 75 per cent of all cases are not seen by the profession, but are treated with salves or lotions by the family or druggist.

The following interesting article by Seymour H. Silvers, M. D., Brooklyn, New York, appeared in the New York State Journal, June 1, 1939. I quote as follows:

The first report linking impetigo with nephritis was that of Salvioli, who in 1879 reported from postmortem observation a case of glomerular nephritis with generalized impetiginous eruption in which he saw a causal relationship. However, the relationship was not very clear, for he had not followed the clinical course of the case, nor was there any statement in his report on the treatment that the patient had received. Sirugues, in 1881, reported cases in which he had observed acute nephritis as a complication of impetigo of the head. Boyer was able to find 7 cases of nephritis in which impetigo was the etiologic factor. Muller saw a case of nephritis following an impetiginous eruption after vaccination. Fontanee stressed the fact that hematuria may be seen not infrequently in cases of impetigo in children. Brocq, in his textbook on skin diseases, also writes of the possible kidney complication in impetigo. Guiard reported 2 cases of nephritis following impetigo. He observed that the nephritis cleared up as soon as the impetigo was cured. He also observed that nephritis may be present in a very mild form and, therefore, overlooked. The prognosis in both his acute and mild cases was usually good. The first report on this subject found in American literature was by Phillips, in 1910. He reported 2 cases of nephritis following impetigo and emphasized that it was the duty of the physician to examine the urine in all cases of impetigo in children, and that in nephritis of obscure origin, impetigo should be considered as a possible etiologic factor. In his first case, nephritic symptoms appeared eight days after the eruption first appeared on the chin. Farah reported a number of cases of nephritis following impetigo, some mild and some severe. Sieben saw a patient, aged 18, who developed acute nephritis after impetigo. Schaefer stresses the favorable prognosis in acute nephritis following impetigo. Sutton reported 5 cases of acute nephritis all preceded by impetigo.

It is not always possible to determine in each case the etiology of acute glomerular nephritis. Students of kidney diseases are agreed, however, that in the great majority of cases the disease is a manifestation of an infection in some part of the body. Longcope, et al., were able to demonstrate infection foci in 84 per cent of their series of cases of acute nephritis. Southby and Stanton investigated acute nephritis in 103 children and found that 29 had tonsillar or peritonsillar infection preceding the onset of acute nephritis. In 27 cases no etiologic factor was discovered; 17 cases had impetigo; 15 were preceded by measles; 11 were preceded by pneumonia, and the remainder due to a variety of causes. Hill, in a similar study among 51 children, found that in 15 cases no etiologic factor could be established, 14 were preceded by tonsillitis, 4 by scarlet fever, and 4 had impetigo. Lichtwitz stressed the importance of skin infections as foci in acute nephritis. He collected 97 cases of acute nephritis in five years. Among these, 19 cases were due to pyodermias of the skin. Kaumheimer found that among his series of 223 cases of nephritis, 21 were due to impetigo. He stressed the fact that skin infections play an important role in causing nephritis. He observed that older children were more vulnerable than infants. The prognosis in his cases was invariably good. Lindenstraus, too, observed that very young children were not as easily affected by impetigo nephritis as older children. He observed that impetigo nephritis is similar in its course to the acute nephritis following scarlet fever.

Since Tillbury Fox first described impetigo contagiosa as a distinct clinical entity, many observers have studied the causative organism. It is generally agreed that both the streptococcus and staphylococcus can be isolated from the lesion, but that in the majority of cases the streptococcus is the causative organism. Farley and Knowles believe that streptococci can be isolated in all cases of impetigo. Hiemke found that only 9.2 per cent of his series of cases yielded staphylococci; the rest showed streptococci on culture. Smith and Burky studied 9 cases in children. In 6 cases they isolated a hemolytic streptococcus, and in 3 they found the staphylococci.

That impetigo contagiosa causes a generalized body reaction was shown by Towle and Swartz. They studied the blood counts in 25 cases of uncomplicated impetigo. In 24 cases investigated, they found an increase in the white blood corpuscles of over 10,000 per cu. mm. In 10 of these cases, the count was over 15,000.

Read before the Sixty-Seventh Annual Meeting of the Florida Medical Association, held at Tampa, April 29, 30, and May 1, 1940.

My son, Dr. T. M. Palmer, was visiting me when the first two patients, whose cases are here reported, were brought in and he made the diagnosis. Prior to this, I had not connected hemorrhagic nephritis with impetigo contagiosa although I am sure now that I had treated such cases without realizing the connection. It was rather singular that I should see five cases within five months, the first two being brother and sister, the second two brothers. All four were Negroes who had had no treatment until swelling had begun and blood showed in the urine. The white child was untreated until blood appeared in the urine.

CASE REPORTS

CASE 1. S. L. B., a colored male, aged 4, was brought to my office on July 30, suffering from eruptions on the body, legs, and arms, which began on June 15. There was no history of any contagious disease. Old scabs and scars were scattered over the entire body. There was general edema of the face, hands, abdomen, and legs; a slight cough, pain in the head and moist rales throughout the lungs. Temperature was 101 F., respiration 22, systolic blood pressure 120, diastolic 90. The urine, which was acid and bloody, showed albumin 2 plus and specific gravity 1010. I saw this patient frequently until the albumin cleared up and he was apparently well.

CASE 2. I. M. B., a colored female, aged 7, sister of the patient in Case 1, was seen on July 30, the same day her brother was brought in. Her condition appeared alarming as there was general edema, an enlarged liver, ascites, moist rales over both lungs, and her face was so swollen that she could not open her eyes. Her rectal temperature was 101 F., respiration 40, systolic blood pressure 130, diastolic 90, urine scant and bloody. As she was in a comatose condition, I sent her to the hospital, where she died on August 1, failing to respond to treatment. Her body, like that of her brother, was covered with scabs and old sores. Home remedies had been used in both of these cases.

CASE 3. A. C., a colored male, aged 4, had slight edema with anascara of the legs and feet. There was no history of any contagious disease. The body, arms and legs were covered with impetigo scabs and scars. There was no elevation of temperature; the systolic blood pressure was 110, diastolic 80. The urine was bloody, with albumin 2 plus and specific gravity 1012. The patient had had no previous treatment. He made a gradual recovery, the albumin and blood disappearing from the urine.

CASE 4. E. C., aged 7, was a brother of the patient in Case 3. In this case, also, there was no history of any infectious disease. The patient's face was edematous; hands, legs and feet swollen; and the body, arms and legs covered with old impetigo scabs. There was no elevation in temperature; systolic blood pressure was 120, diastolic 90; urine bloody, with some albumin. On treatment, the albumin and blood disappeared from the urine and he made a gradual recovery.

CASE 5. R. C., a white male, aged 3½ years, had had pertussis for a month and impetigo for two weeks when he was brought to my office for treatment. He did not vomit and there was no elevation in temperature but rales were heard over the lungs. Sores covered the buttocks and were scattered less thickly over the body, legs, arms and face. He was very anemic, with a rapid pulse. The systolic blood pressure was 125, diastolic 90. The urine, which had become very dark three days before, was bloody and showed albumin present. He responded to treatment, showing steady improvement. The urine became clear in 10 days.

Box 547

DISCUSSION

Dr. Thomas M. Palmer, Jacksonville:

This has been a most interesting and instructive paper by Doctor Palmer, and, I am certain that all of us have enjoyed it.

I feel that one is justified in concluding (and I mention this because in the cases reported the sores were well along in age) that Doctor Palmer's patients were suffering from impetigo contagiosa and not Brockhart's impetigo.

Impetigo contagiosa is a contagious skin disease due to inoculation with streptococci, usually Str. pyogenes (hemolyticus or viridans) or Str. anginosus (found in the throats of scarlet fever patients). These are organisms which cause suppurative lesions or severe systemic infections.

Brockhart's impetigo is really a superficial Staphylococcus folliculitis and is pustular from the outset. According to Sutton, whom the essayist quoted, so-called trench nephritis in soldiers was often due to impetigo complicating pediculosis.

Now that we are familiar with the fact that impetigo contagiosa may cause acute hemorrhagic nephritis, I feel certain that many of us will encounter similar cases in the future. Although the majority of patients will show sores at the particular time of examination, one may well obtain the story of sores which have only recently healed. We should inquire concerning this in our history taking.

With regard to nephritis, we know that there often is a precise interval between the time of the original infection and the onset of nephritis. The same may be true in the case of impetigo contagiosa, although we cannot prove this at present.

It is undoubtedly true that acute hemorrhagic nephritis due to impetigo contagiosa presents no differences from that due to acute tonsillitis. Last summer I saw a 14 year old boy with this complication, i. e., acute hemorrhagic nephritis with impetigo. He ran a typical course with hypertension, blood pressure 188/128, nonprotein nitrogen 60 mg., and developed cerebral manifestations in the form of convulsions. He made a dramatic recovery, although when seen two weeks ago, his urine showed a 1 plus albumin.

As a rule one would suppose that the neglected cases of impetigo contagiosa more often show acute hemorrhagic nephritis. On the other hand the thought occurred to Doctor Palmer and myself that ammoniated mercury ointment, as you well know very commonly used in treating impetigo, might be the etiological factor in some cases. It is possible that the patient literally covered with sores might absorb sufficient mercury to cause nephritis or be hypersensitive to mercury. We do not believe that we have seen such instances.

Dr. Gilbert S. Osincup, Orlando:

Doctor Palmer is indeed to be commended for having presented this important subject to us and the nephritic complication of this very prevalent disease.

All of you who have been practicing in Florida know how prevalent impetigo is. You also know, as he says, that at least 50 per cent of these patients are unseen and untreated by physicians. The percentage is probably much higher than that.

He made one statement that I take exception to. He said that we paid no particular attention to impetigo. That is not true in our practice. I assure you the mothers would not permit it; they would run you crazy. But, as he stated, a great many of them are greatly overtreated before the doctor sees them.

I agree with the point that Dr. Thomas Palmer brought out, that the question of ammoniated mercury or mercurial ointments applied before we see them should be considered relative to etiology. One peculiarity of this nephritis to me is the severity of that hemorrhage. Most of these patients are very, very sick children. There is

almost complete suppression and almost pure blood at some stages of it. A vast majority do clear up in a comparatively short time. But most of the parents think that the children are going to die. We are also afraid of it. They do clear up, fortunately.

I have seen cases following impetigo, and I have also seen them following athlete's foot, and other well marked skin conditions. No other etiological factor could be found and it is to be assumed that these were the organisms which caused the acute nephritis.

Again, I want to thank Doctor Palmer for having presented this paper. I hope every one will benefit from it who has paid attention to this particular subject.

Question from the floor:

I would like to ask Doctor Palmer about his method of treatment.

Dr. Henry E. Palmer (Concluding):

I use the same old treatment, ammoniated mercury.

I wish to thank the gentlemen for discussing my paper. Permit me to quote a proverb: "Out of the mouths of babes and sucklings come words of wisdom."

SPONTANEOUS HEMORRHAGE OF THE OVARY

J. S. TURBERVILLE, M. D.
Century

This is a rare condition or, it should be said, a condition rarely recognized clinically, and then usually at the operating table through a mistaken diagnosis. I will here give a short discussion of the structure of the ovary and something of the known physiology.

According to Davis,[1] the microscopic structure of the ovary shows a reddish spongy stroma well supplied with blood vessels, containing numerous folliculi "oophori vesiculosi (Graafi) enclosed in the serous covering derived from the peritoneum. The serous coat differs from the ordinary peritoneal lining by having a single layer of columnar cells, the germinal epithelium of Waldeyer."[1] The medullary portion of the ovary is very vascular, but less so in the cortical portion. The reverse is true for the ovarian follicles which contain the human ova. The graafian follicles vary in size from microscopic to as large as one-fourth inch in diameter. They ripen, increase in diameter and approach the surface upon which they form little blister-like prominences.

When these cysts mature they rupture and the ovum is discharged. The cavity fills with the bloody fluid and becomes successively the corpus hemorrhagicum, the corpus luteum and the corpus fibrosum. Unless pregnancy takes place it is called the false corpus luteum and disappears after two or three months. Under the influence of pregnancy it grows for some time, remains during gestation, and disappears two or three months after parturition.

It can be seen that, if for any reason the mature follicles do not rupture, cysts form. It is possible also for the follicles to rupture into recent corpora lutea which are very vascular by reason of the granulation tissue present in the healing follicle. This may explain the corpus luteum hemorrhages. The same process that causes rupture of the follicle at the time of maturation may occasionally continue afterwards and be the cause of the spontaneous hemorrhages that we are now studying. The function of the ovary is that of generating and discharging ova. It evidently has some kind of influence over growth, and a stabilizing influence over the general nervous system.

I do not intend to discuss rupture of ovarian retention cysts, cyst adenomata of any variety, dermoids, cysts with twisted pedicles, parovarian cysts, large corpus luteum cysts, endometriosis of the ovary, hemorrhage due to the exanthemata or metallic poisoning, or rupture of the ovary due to torsion of the pedicle. I am confining my remarks to healthy appearing organs in which rather normally appearing graafian follicles and normally appearing corpora lutea break open and bleed, sometimes almost to the point of exsanguination.

In Penrose's *Diseases of Women*,[2] this condition is mentioned under the heading of "Apoplexy of the Ovary." In Reed's *Text Book of Gynecology*,[3] it is spoken of as hematoma of the ovary which sometimes ruptures. It is mentioned in the available textbooks under various classifications. Among these textbooks are those of Pryor,[4] Gilliam,[5] and Walscheid.[6] Some of the later books discuss the subject at great length and make attempts at listing symptoms and certain diagnostic tests that might lead to a correct idea of the condition. Among these are Hardy[7] who states:

> Notwithstanding the fact that ovarian intraperitoneal hemorrhage is a relatively common occurrence, and has doubtless been found by most surgeons of ordinary experience, a complete survey of the literature on this subject up to a few years ago reveals the fact that 77 cases had been reported. Of these cases, not one preoperative diagnosis had been made.

Read before the Leon-Gadsden-Liberty-Wakulla-Jefferson County Medical Society, January 18, 1940.

He classifies them into (1) primary, referring to an exaggeration of the physiologic process of maturation of the ovum and its expulsion and consequent hemorrhage into the follicular cavity, and (2) secondary, referring to a variety of conditions, rupture of the corpus luteum, rupture into retention cysts, into new growths, bleeding into endometrial cysts, etc. He works out a differential diagnostic scheme. Among his diagnostic points are: tenderness on manipulation of the cervix in ectopic pregnancies in conjunction with a history of delayed or missed menstrual periods and signs of hemorrhage; epigastric or umbilical pain and abdominal rigidity in the beginning of appendicitis. He notes that shoulder pain is common to both hemorrhage of the ovary and ruptured ectopic pregnancy. His is a splendid discussion of the subject.

Among recent writers are Boggon and Wrigley[9] who, under the caption of "Ovarian Blood Cysts" report 13 cases with the following summary. Five were married, 8 single; the average age was 27.7 years. All were diagnosed as appendicitis, all were operated upon and all recovered. Temperatures varied from 99 to 101 F., pulse from 64 to 130. There were five cases of tenderness and rigidity in the right iliac fossa and eight with these symptoms in the lower abdomen. Rectal and vaginal examinations did not give any information of value. No mention was made of the relation of the hemorrhages to the menstrual cycle.

Paul C. Morton[9] reviews all reported cases up to that time with the following tabulated summary:

Total cases reported to 1931	93
Right	25
Left	19
Not given	49
Type of cyst:	
Corpus Luteum	26
Follicular	5
Not given	62
Preoperative Diagnosis:	
Appendicitis	37
Ectopic Pregnancy	17
Cystic Ovary	3
Salpingitis	3
Exploratory Laparotomy	33

He states that the menstrual histories are very incomplete. He mentions one author who has complete menstrual histories of 8 patients in whom there was an average of 16 7/10 days between menstruation and occurrence of hemorrhage. In his own case the hemorrhage occurred 18 days after menstruation. He seems to think that if an investigation were made it would be found that most hemorrhages come from the corpora lutea.

Sackett[10] reports on 26 cases but his analysis does not give much information. His group is rather heterogeneous. The relation to the last menstruation is not pointed out. He does say that this condition is not apt to happen in the first half of the menstrual cycle. There were no deaths in his series.

Cornil, Mosinger and Picaud[11] made a histological study of 250 ovaries. They regarded as hemorrhage all intra-ovarian hematomas in normal or pathologic ovaries. Fifteen cases were discussed. In one case there was bleeding from the wall of the ruptured follicle and in another a vein of considerable size was ruptured. They are inclined more to the idea that the condition is one of diapedesis through hormonal influence than an actual rupture of vessels. No mention is made as to the relation of the time of the hemorrhage to the menstrual cycle.

Maffey[12] reports a case of ovarian hemorrhage which occurred following a missed period under the following circumstances. After missing a month the flow came on and lasted seven days. Then there was an interval of three days with no flow, after which the flow recurred, accompanied by pain and tenderness of the lower abdomen. Curettage did not show pregnancy, neither did the ovary which was removed. Operation revealed a clot over a nest of cysts which was beginning to organize. The hemorrhage was thought to come from the cysts. Perhaps the rent in the cysts had healed.

dePol[13] reports a case in which the hemorrhage occurred on the tenth postmenstrual day in a single woman. It was diagnosed by the family doctor as appendicitis. This diagnosis was accepted and she was operated upon. The rectal and vaginal examinations did not give any definite information. dePol reviewed eight other cases incorrectly diagnosed. He thinks that the diagnosis will always be between appendicitis and ruptured ectopic pregnancy.

Convert[14] reports two cases both of which

were diagnosed as ruptured ectopic pregnancy. He does not state whether these patients were married or not. The origin of the hemorrhage was follicular but the relation to the menstrual cycle was not mentioned.

Jones[15] reports three cases, all young women in their twenties. The hemorrhages occurred, respectively, five, sixteen and twenty-one days after menstruation. He mentions the uncertainty and indefiniteness of the rectal and vaginal examinations, also the large amount of blood from such insignificant lacerations in the ovary. He notes the sudden excruciating pain in the lower abdomen which lasts a short while, followed by a lull of several hours, then a return of pain, tenderness, and rigidity, worse in the affected side. He does not state the preoperative diagnosis.

Stabile[16] reports a case in which the hemorrhage occurred on the fourteenth day after menstruation. The last period was of short duration. He calls attention to the fact that in the majority of cases which he has seen, the hemorrhages occurred after a period of amenorrhea or one of altered menstruation. He suggests that it is perhaps produced by the same mechanism as the follicular hemorrhage in the Friedman test.

Manizade[17] states that diagnosis is difficult in small hemorrhages, especially so in hemorrhages from the right ovary. His main diagnostic point is to remember that such hemorrhages do happen in female patients, especially in atypical cases of acute abdominal conditions. He reviews 167 cases of corpus luteum and follicular hemorrhage confirmed pathologically. These occurred at or after ovulation according to the modern notion as to the time of occurrence of ovulation.

I wish to report four cases that have come under my observation.

Case 1. This was a Jewish woman in her twenties who had been married but a short time. She was brought to a hospital in a nearby county and I was called in to operate under the diagnosis of appendicitis. The case had been worked up on my arrival. However, I did make a cursory examination and expressed doubt as to the diagnosis of appendicitis. I agreed, however, that it was a surgical emergency. Operation was done immediately. The appendix appeared to be normal and, on completion of its removal, blood was noticed. The meso-appendix and pursestring suture were inspected and found to be dry. Then the pelvic organs were examined and the right ovary showed active bleeding from a ruptured graafian follicle. This was evidently the cause of the pain. The ovary was removed. I did not obtain any information regarding the relation of this episode to the menstrual cycle. Her convalescence was uneventful. This was the first case of spontaneous rupture of the ovary which I ever saw.

Case 2. This patient, who had been ill for forty-eight hours, was examined by my son, Dr. J. I. Turberville. Her trouble began with pain in the lower right abdomen and profuse vomiting. She stated that her whole abdomen was "sore and felt swollen." There was nothing of importance in the family or personal history, except that she would occasionally miss her menstrual periods as much as four or five months at a time. However, the relation of this sickness to the menstrual cycle was not investigated. She gave a history of occasional digestive disturbance. Examination revealed only a tender, rigid abdomen with maximum tenderness 1½ inches below and 1 inch to the right of the navel in an area about the size of a silver dollar. Vaginal examination could not be made on account of an intact hymen. Rectal examination revealed the uterus in good position but there was distinct tenderness to the right of the uterus. Her urine was normal and her blood showed 85 per cent polymorphonuclears. A diagnosis of appendicitis was made. The operation through a right rectus incision was done by me. The abdomen was filled with liquid blood and a large clot was spread out over the right ovary and tube. The ovary was 8 by 6 by 4 cm. in size. It was removed by ligation, together with some fimbrial cysts. The pathologist reported that a corpus luteum cyst had ruptured and caused interstitial hemorrhage. This hemorrhage, in turn, had ruptured. The bleeding was active at the time of operation. There was some shock at the conclusion of the operation which was soon over. Her age was 18 years. She had an uninterrupted convalescence and has since married and has three children.

Case 3. This patient, aged 22, was the daughter of a physician. Her family and personal histories were unimportant. Her present illness began 72 hours before I saw her, with pain about the navel. The acute pain was soon relieved but was followed by general tenderness over the whole abdomen, worse in the lower right side. Sixty-three and one-half hours after onset she had a chill and a temperature of 102½ F. When first seen, she had pain and tenderness in her lower right abdomen and epigastrium. Examination revealed no abnormality outside of the abdomen except a slight systolic murmur at the apex of the heart. The abdomen showed some tenderness in the epigastrium and also tenderness in the right side of the abdomen. The maximum tenderness was midway between the anterior superior spine of the right ilium and the navel. Pressure on the left side of the abdomen caused pain on the right side. Livingston's sign was not present and there was no psoas or rotator spasm of the thigh. Palpation of the abdomen, with the patient in left lateral position, showed exaggeration of the tenderness on the right side. Rectal examination revealed nothing abnormal. Laboratory examination of urine was normal. Blood examination showed the white count to be 12,650, red count 3,960,000, hemoglobin 75 per cent, polys. 74, clotting time 3 minutes. The following note was made: "The patient looks sicker than the findings would indicate."

A diagnosis of acute appendicitis, with perhaps rupture, was made. However, I said to her father that the parts of the picture did not fit exactly and that he should not be surprised to find a rupture of the ovary. This was on her twenty-seventh postmenstrual day. Operation revealed what appeared to be a normal appendix, but abnormally situated. The pathologist labeled it as lymphoid hyperplasia of the appendix. The abdomen showed liquid blood among the intestines, and a clot in the pelvis. The left ovary was ruptured and actively bleeding. The pathologist reported congestion and hyperlutinization of the ovary. She made an uninterrupted convalescence, has since married and has one child.

Case 4. This patient was a white married woman, aged 32, who had never been pregnant. Her family and personal histories were unimportant except that she had begun menstruation at the age of eleven. Menstruations were of

a two to four week interval, the average being three weeks and the usual duration from five to six days. The last period was twenty-one days before onset of her trouble. She was a well developed and healthy young woman. When first seen she had been ill for eleven hours. Her illness began with a cramp-like pain just above the symphysis pubis, which did not shift. Three hours after onset she developed pain in both supraclavicular regions. The pain cut her breath and she was unable to take a deep breath. She had not missed a menstrual period nor had she been delayed. She said that she never had anything like this before. The temperature was 97 2/5 F., pulse 98, blood pressure 120/84. There was considerable tenderness in the lower abdomen, especially over the symphysis pubis. The vagina was normal; the cervix showed a nabothian cyst. The corpus uteri was distinctly felt and was in the anterior position. It was small and of firm consistency. The adnexa were not felt. There was an indefinite boggy resistance in the cul-de-sac of Douglas. All other organs and systems were normal. The urine was normal. Eleven hours after onset, her white blood count was 21,000, polys. 91 per cent, coagulation time 1 minute 45 seconds. A red blood count was not made. Four hours later the following was found: red blood count 4,310,000; white blood count 18,000; hemoglobin 70 per cent; polys. 88 per cent. My son, Dr. J. K. Turberville, made this investigation and decided it was a case of internal hemorrhage, probably due to rupture of a follicle or corpus luteum of the ovary. I concurred in this diagnosis.

After observation for three hours, 17 hours after onset of pain, she was operated upon by Dr. J. K. Turberville. His operative findings were as follows: The abdomen was filled with free and clotted blood. The right ovary was about twice as large as normal and had a ruptured graafian follicle which was still bleeding. There was a small cyst that occupied almost half of the ovary. The cyst and bleeding follicle were removed by sharp dissection and the defect was closed by small chromic catgut suture, pulled tight enough to prevent bleeding. The convalescence was uninterrupted.

Doctor Turberville based his probable diagnosis of internal hemorrhage due to the rupture of a follicle or corpus luteum of ovary mainly on the following considerations: Her symptoms did not fit into the more common abdominal emergencies. There was absence of any indication of previous pelvic disease. The abdomen was tender but not particularly rigid. The pain began and remained in the pelvic region. It extended upward as indicated by the shoulder pain. This shoulder pain indicated irritation of the diaphragm. The physical findings in the pelvis and abdomen seemed to indicate the presence of something of greater consistency than watery fluid. The increase in the severity of the symptoms was too rapid to be inflammatory in nature. Ruptured ovarian cystadenomata do not produce much pain or rigidity. In most cases the patient is up and about when the doctor is consulted. The presence of a pelvic growth is generally known or suspected by the patient. Finally, a recent discussion of spontaneous hemorrhage of the ovary had focused Doctor Turberville's attention on this condition.

There are 743 cases of this condition reported in the literature. No doubt some of these are duplicates or triplicates as no attempt has been made to correct such an error. There are certain outstanding features common to cases with extensive hemorrhage. It is important to note a rapid increase in the severity of the symptoms. The prostration of the patient is more rapid than it is in other pelvic lesions. There is usually no indication of pregnancy or previous pelvic inflammatory disease. The great majority of the patients have been healthy women in the midst of their active genital lives.

Many authors mention other forms of hemorrhage from the ovary in addition to these follicular and corpus luteum hemorrhages. Among them are ruptured ovarian cysts, malignancies, infectious diseases, metallic poisons, certain systemic states, and anemias of various kinds. However, I have seen no such cases. Therefore, it is to be concluded that hemorrhages from these other causes must be negligible and hardly need to be considered in making the diagnosis. It makes one wonder if these causes of hemorrhage are not listed simply to round out academic discussions. There are a few cases reported with histories of amenorrhea or altered menstruation. They are so few that it is hard to conceive of any causal relationship. The time factor in relation to the menstrual cycle has not been established. Most of the cases reported show a lack of careful history taking and of complete physical examination. It is hoped, therefore, that those who encounter these cases in the future will make postoperative studies in the light of the findings of this very interesting condition.

One noteworthy point is that the large amount of hemorrhage occurring in these cases is entirely out of proportion to the insignificant structural damage. We are forced to think that some local temporary influence —hormonal, secretory, or whatever you wish to call it—is responsible. This idea is substantiated by the fact that many follicular cysts are punctured in the course of abdominal operations yet none, according to my knowledge, cause any hemorrhage that requires surgical treatment.

Perhaps very few of these cases will ever be diagnosed preoperatively. However, it is well to think of this condition in the presence of atypical abdominal emergencies. This is especially so if the pain and tenderness remain about the pelvis, in the middle, the right or the left side, gradually spreading upward. The presence of shoulder and thoracic pain and painful breathing are particularly important. The diagnosis must often be made by exclusion, especially in differentiating hemorrhages from ectopic pregnancies. It must be re-

membered that a few of these cases have been accompanied by uterine bleeding. If one remembers the possibility of spontaneous hemorrhage of the ovary when examining obscure cases of lower abdominal emergencies in women, perhaps an occasional correct diagnosis can be made.

BIBLIOGRAPHY

1. Davis, Carl Henry: Text Book of Gynecology and Obstetrics, Vol. 1, Ch. 1, p. 47. Published 1939.
2. Penrose, Charles B.: Diseases of Women, Ch. 27, p. 338. Published 1900.
3. Reed, Charles A. L.: Text Book of Gynecology, Ch. 39, p. 618. Published 1901.
4. Pryor, William R.: Gynecology, Ch. 2, p. 64. Published 1903.
5. Gilliam, D. Tod: Text Book of Practical Gynecology, Ch. 37, p. 445. Published 1911.
6. Walscheid, Arthur John: Abdomino-Pelvic Diagnosis in Women, Ch. 10, p. 784. St. Louis: C. V. Mosby Co., 1931.
7. Hardy, John A.: A Synopsis of the Diagnosis of the Acute Surgical Diseases of the Abdomen, Ch. 14, p. 116. St. Louis: C. V. Mosby Co., 1938.
8. Boggon, R. H., and Wrigley, A. J.: Rupture of Ovarian Blood Cysts Simulating Acute Appendicitis, Lancet, **2**: 1068-1070 (Nov. 14), 1931.
9. Morton, Paul C.: Intra-abdominal Hemorrhage of Ovarian Origin, New York State J. Med. **32**: 196-197 (Feb. 15), 1932.
10. Sackett, Nelson B.: Intraperitoneal Hemorrhage of Ovarian Origin, Am. J. Obst. & Gynec. **23**: 849-857 (June), 1932.
11. Cornil, L., Mosinger, M., and Picaud: Contribution to the Anatomical and Pathogenetic Study of Ovarian Hemorrhage, Gynéc. et Obst. **27**: 491-501 (June), 1933.
12. Maffey, R. E.: A Case of Ovarian Hemorrhage, M. J. Australia, **2**: 255-256 (Aug. 25), 1934.
13. dePol, G.: Large Hemoperitoneum Due to Rupture of a Graafian Follicle, Riforma Med. **52**: 62 (Jan. 11), 1936.
14. Convert, P.: Two Cases of Peritoneal Inundation Due to Rupture of a Follicle, Bull. Soc. d'obst. et de Gynec. **25**: 148-149 (Feb.), 1936.
15. Jones, Everett: Massive Abdominal Hemorrhage from Ruptured Corpus Luteum Cyst, Texas State J. M. **31**: 755-757 (Apr.), 1936.
16. Stabile, A.: Pelvic Hematocele of Non-gravidic Origin. Arch. Urug. de med. Cir. y especialid, **8**: 396-405 (May), 1936.
17. Manizade, M. D.: Differential Diagnosis of Appendicitis and Hemorrhage from the Follicle and From the Corpus Luteum, Wien. Klin. Wchnschr. **49**: 1392 (Nov. 13), 1936; 1428 (Nov. 20), 1936.

HAY FEVER UNRELIEVED BY HISTAMINASE

Histaminase failed to give relief to any of his fifteen patients with ragweed hay fever, Edmund L. Keeney, M. D., Baltimore, reports in *The Journal of the American Medical Association* for June 22.

"Since histaminase is advocated as a drug effective in controlling disorders of an allergic nature, it seemed that its benefits could be most accurately determined by its use in the treatment of patients with seasonal hay fever," he says.

"Histaminase was administered by mouth to fifteen patients with typical ragweed hay fever during the height of the 1939 ragweed season. It failed to give relief to any of the patients. Any fluctuation in symptoms that occurred could be accounted for by a concomitant fluctuation in the pollen concentration of the atmosphere."

ENDOCRINOLOGY OF MENSTRUATION

REVIEW OF RECENT LITERATURE

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The vastness of this subject makes a thorough review in a short paper impossible. However, the high points of the physiology of the organs involved will be discussed, together with the relationship of all hormones to normal menstruation.

The discovery of the circulation by William Harvey, in 1619, was the most important which has ever been made in medicine, and the source of most of the subsequent improvements.

In the early eighteenth century, Swedenborg, according to Baar, wrote that the liver and the pancreas functioned chemically and, in conjunction with the spleen, brought about the purifying of the blood.

In 1775 Theopile de Bordeau, of Montpelier claimed that every organ created special bodies for the function of the whole organism. He described the symptons in castration, puberty and the menopause and pointed out the importance of secretory anomalies as a basis of some pathological conditions.

In 1849 A. A. Berthold of Gottingen proved experimentally the influence of the internal secretion upon the blood. He transplanted the testicles of young cockerels, and observed that although castrated they remain normal cocks insofar as vocal power, sexual instinct, desire of combat, comb growth etc., were concerned. He definitely and accurately established the existence of the secretion of the testicles. Brown-Sequard of Paris, in 1869, taught that all glands whether possessed with excretory ducts or not contributed valuable substances to the blood without which pathologic conditions arose. In 1889 he made a report before the Paris Societe de Biologie, at the age of 72 years, of injecting himself with testicular juice and experiencing an increase of physical vigor, cerebral function, appetite and intestinal activity. Since then it has been found that the ovaries as well as the testicles produce hormones that originate in parts of the glands other than those producing external excretions. Hanes, in 1911, found that in the male they originate in the interstitial cells of Leydig, and in the female probably in the corpora lutea.

Storling in 1902 originated the name "hormone" from the Greek, "I arouse, or set in motion."

In 1859 Schiff was first to attempt transplantation experiments in dogs for thyroid deficiency. In 1880 Sanstrom described the parathyroids.

In 1901 Froehlich described his syndrome "dystrophia adiposogenitalis." In 1907 Paulesco reported a death after total extirpation of the gland, while partial extirpation was followed only by very characteristic effects upon growth and development. In 1909 Cushing and Homans revealed the gland's relationship to carbohydrate metabolism. These researches led to the production of pituitrin.

In 1911 Bartel and Herman are reported to have found enlarged ovaries in the so-called status lymphaticus. In 1889 Rogowitsch observed hypertrophy of the hypophysis after extirpation of the thyroid. In the same year Marie pointed out the association between acromegaly and anatomical changes in the hypophysis.

OVARY

The structure of the ovary is for the most part composed of a connective tissue, called the stroma ovarii, richly supplied by blood vessels and nerves. The stroma contains very numerous spindle-shaped connective tissue fibres and some elastic tissue. The surface of the ovary is covered by a layer of epithelium, which is composed of columnar cubical cells, and is continuous with the epithelium of the peritoneum forming the mesovarium. The ovarian epithelium is a persistent portion of the germinal epithelium of the embryo which covers the genital ridges, and from which the ova and other cells of the graafian follicles are derived. The position in which it becomes continuous with the peritoneum can usually be distinguished as a fine white line near the hilum of the ovary. Shining through the epithelium of the fresh ovary (except in old age) are usually to be seen a variable number of small vesicles, the folliculi oophori vesiculosi (O. T. Graafian follicles) in which the ovula or ova, are contained.

The number of follicles visible, and also the size which each follicle reaches before it ruptures and sheds its contents, are by no means constant. When a follicle ruptures and discharges the ovum its walls at first collapse, but later the cavity becomes filled with extravasated blood and cellular tissue of a yellowish color. The resulting structure, called a corpus luteum, slowly degenerates unless impregnation has taken place, in which case it develops and becomes larger during pregnancy. As it atrophies the cells of the corpus luteum disappear, and the structure, losing its yellow color, receives the name of corpus albicans. After a time the corpus albicans completely disappears. Owing to the periodic rupture of the graafian follicles, the surface of the ovary, which is at first smooth and even, becomes in old age dimpled and puckered.

The graafian follicles produce varying amounts of follicle hormone (estrin, estrone, folliculin, female sex hormone, theelin, etc.) This substance is demonstrable in both the blood and urine by various tests and may be found in many other tissues and fluids (placenta, amniotic fluid, urine of pregnancy, etc.) Also substances of the estrogenic type are found in many forms of plants and even minerals so that the principle can't be considered a specific hormone of the follicle. Zondek and Aschheim in 1927 found urine of pregnant women contained large quantities of estrogenic hormone. Disy, using such urine, first isolated an estrogenic hormone in crystalline form and named it Theelin. It represents a group of substances rather than the estrogenic hormone. Some of the sterol groups are known to be estrogenic also. The clinical nature of estrogenic substance was observed by Butenandt, who found it to be an oxyketone of the formula $C_{18}H_{22}O_2$, closely related to the sterols.

After the follicle ruptures the corpus luteum carries on further estrin production so we have this principle throughout the cycle. However, the amount in the blood drops with retrogression of the corpus luteum which begins shortly before the onset of the succeeding period. According to Moricard, estrin is secreted from the theca interna cells which are in intimate relationship with the circulatory system whereas the stratum granulosum is avascular.

This estrogenic substance is responsible for increasing growth and hyperemia of the endometrium from the end to the beginning of the menstrual cycle and regulates the normal rhythmic activity of the musculature. In the lower animals they have physiologic effects upon the accessory genitalia but do not stimu-

late the ovary or the anterior pituitary gland. Large doses suppress the ovary and thus produce bleeding from hyperplastic endometrium but this is not true menstruation. This action is temporary. A large amount of estrin followed by progestrone produces pre-menstrual type of endometrium in the human castrate. This type of bleeding may be considered true menstruation. Estrin which is produced by the follicle causes proliferation and vascularization of the mucosa and has a stimulative effect upon uterine musculature inducing rhythmic contractions.

Corpus luteum produces, besides estrin, a second and more characteristic hormone, progestin, and it seems not unlikely that progestin is to be looked upon as only a modified estrin, just as the lutein cell is only a modified granulosal cell. This isn't produced by any other tissue. The corpus luteum hormone has not been closely identified but we may safely assume that it belongs in the same class of sterols as estrin. It has been synthetically produced from pregnandial which is found in the urine of pregnant women and also from stigmasterol, a wax obtained from the soy bean, but it remains rather expensive.

Progestin brings about secretory and other changes with its contractility which characterize the endometrium with the approach of the next menstrual flow. However, it has no stimulative effect upon the ovary. Progestin, which is specific for corpus luteum, produces pregravid change in the endometrium and sensitizes it for nidation if fertilization occurs. However, unlike estrin, it has an inhibitory effect upon the uterine musculature inducing a quiescent state. Foiling conception, desquamation of mucosa and bleeding occur.

Kaufman has proved that no other hormones could possibly take part in the proliferation and secretion phases which appear limited to progestin. This hormone is undoubtedly formed in the corpus luteum itself, as it can be obtained only from this organ.

HYPOPHYSIS

The hypophysis is composed of two lobes, a large anterior lobe and a smaller posterior lobe which are closely applied the one to the other. The infundibulum which extends downwards from the tuber cinereum, is attached to the posterior lobe.

There is a third pair of sex principles obtainable from the urine of pregnant women, even in early states. These substances represent the composite called prolan consisting of separate principles which on animal ovaries produces either follicle ripening "A" or luteinizing "B" effects analogous to those produced by the pituitary sex hormones themselves. They are not identical with pituitary sex hormones themselves but are called anterior pituitary like gonadotropic principles of pregnancy urine. These same principles are also derived from the placenta.

The classic research of Herbert Evans, Zondek, and Aschheim shows that the hormone of the anterior pituitary is essential for ovarian functioning—called gonadotropic hormone of anterior lobe. Unlike the ovarian hormones it contains nitrogen, soluble in H_2O, similar to the thyrotropic hormones and insulin. It seems to be closely connected chemically to the degeneration products of the proteins. Without doubt the gonadotropic hormones of the anterior lobe are at least one of the factors under the influence of which the cyclic process in the ovary is governed. It stimulates ripening of the follicle and ova, ovulation, and then formation of the corpus luteum.

Schockaert and Siebke ground hypophysis of the adult female and found in the anterior lobe up to 4,000 mouse units of Hormone A and up to 1,500 mouse units of Hormone B. Their findings indicated also that glandular products have a higher gonadotropic hormone content than pregnancy urine.

As determined by Fluhmann the ovary-stimulating hormones may be divided into two categories. In the first group can be considered the pituitary hormone which includes the extracts prepared from anterior lobe material as well as the substance obtained from the blood or urine of women after castration or after menopause. The second group, the "chorionic hormone", is made up of material obtained from the blood or urine of women during gestation or association with hydatiform mole or chorio-epithelioma. The follicle stimulator, or prolan "A" is responsible for the maturation of ovarian follicles and thereby the production of estrin. Likewise, the luteinizing principles, or prolan "B", is responsible for the conversion of granulosal and even thecal cells into lutein cells and thereby the production of progestin. Evidence is increasing that these

two pituitary sex principles are really separate hormones.

The anterior pituitary gland concerns not only sex function but controls and exerts a direct influence upon the thyroid, parathyroid, adrenals, pancreas, and other members of the endocrine chain. The pituitary gland and hypothalamus (a region now generally believed to harbor the regulating center of the vegetative nervous system), are closely related anatomically and functionally, Philip discovered that the anterior lobe of the pituitary is almost free of gonadotropic hormones during gravidity just at the time when the greatest amount of follicle and corpus luteum hormone is required. This is explained by studying the reaction of the estrogenic hormone on the pituitary. It has been observed that after castration overproduction of gonadotropic hormones is found. This overproduction can be stopped by introduction of estrogenic hormones. This is not a direct reaction but occurs indirectly through cooperation with the central nervous system. Let us presume a center in the hypothalamic region of the mid-brain which, upon diminution of the ovarian hormone, stimulates the pituitary through the nerves and likewise upon an excessive increase in estrogenic hormone discontinues this stimulation. Because the anterior lobe of pituitary acts as a regulator of the activity of the ovarian hormones, it is clear that the high demand of production of estrogenic hormone during gravidity continues to be met in the ovary. Increase of estrogenic hormone stops through the sex centre the production and delivery of the gonadotropic hormone from the anterior lobe. Thus the pituitary in pregnancy contains almost no gonadotropic hormones. We know from investigations that it is the chorion in which during gravidity the gonadotropic hormone is formed. This makes possible the Aschheim-Zondek test for pregnancy.

Thus it appears the sexual centre in the mid-brain rather than the pituitary really regulates the ovary. In analyzing the hormonal regulation of ovarian function, Zondek presented evidence that the formation and maturation of the ovum must be controlled by the anterior pitutiary secretion as are the growth of the follicle and the corpus luteum. That the ovum cannot bring about luteinization was also determined experimentally. In a rabbit he observed also when prolan "B" was injected after removal of the ova a follicle developed into a corpus luteum. The gonadotropic hormone of the anterior pituitary produces the maturation of the follicle and the ovum, the rupture of the follicle and the development of the corpus luteum. Control of the sex glands by the central nervous system as suggested by Hohlweg, Junkmann and Schoeller are considered possible although the experiments to confirm this hypothesis are very few. The question whether the hormonotropic action of the anterior pituitary requires a central nervous regulation for its effect on the endocrine glands is still open.

UTERUS

In hysterectomized rabbits which were observed for a year, Siegmung found the uterus unnecessary for development of the follicle but necessary for the development of the corpus luteum. Dworzek and Podleschka believed that their studies on autotransplantation of the uterus and ovary into the eyes of rabbits indicated that the uterus develops a hormone. Cheval, ultilizing dogs and transplanting pieces of uterine and ovarian tissue into the abdominal muscles, came to the same conclusion. Mayer, on the basis of dog experiment, suggested that in all cases in which bilateral oophorectomy is performed on women under fifty years or age, a subcutaneous transplantation of the ovarian tissue should be done, and that when removal of the uterus is necessary a piece of the uterine fundus with endometrium should be transplanted. He concluded that there is an internal hormonal relationship between the uterus and ovary, that is a "uterine hormone."

Present states of sex hormone therapy is rendered even more uncertain by lack of dosage and time of administration. The closest idea of physiologic dosage for the human is given by Kaufmann who found 1,000,000 international units of estrogenic substances followed by 35 rabbit units of progesterone is necessary to duplicate the endometrial cycle in the human castrate. The newer sex hormone preparations have proved disappointing. Thus far thyroid extract remains the most important form of organotherapy in the treatment of functional menstrual and reproductive disorders if coupled with proper sex hormone therapy.

Menstruation is brought about by a joint action of uterus, ovary, hypophysis and midbrain. Removal of the ovaries and the anterior lobe of the hypophysis causes atrophy of the uterus and of the other secondary female sexual organs. The two hormones must be applied successively in accord with the temporal sequence of the proliferation and secretion phases. The actual cause of menstrual bleeding is not definitely known. Four factors may be considered, namely, myometrium, endometrium, ovary and anterior pituitary gland.

Myometrium might appear to be of importance in controlling menstrual bleeding because of the role uterine muscles play in checking postpartum hemorrhage.

Development and maintenance of the endometrium are dependent upon the estrogenic hormone. It deserves careful consideration not only because it is the site of the bleeding but also because it reflects the activity of the ovaries. Examination by Klingler-Burch suction currette has proved very instructive along these lines. Six hundred specimens show there are basically only four types of endometrium, namely, proliferative, transitional, secretory and menstrual.

Hartman, Firor and Geiling demonstrated that there can be no bleeding without the presence of the pituitary gland. They also showed that bleeding which follows injection of estrin does not occur in hypophysictomized monkeys, but injection of anterior pituitary extracts does bring about bleeding in a proliferative musoca.

Wilson and Kurzrok offer the following hypothesis of bleeding mechanism as a single explanation of all functional or hormonal forms of uterine bleeding: Bleeding, per se, is due to a special hormone elaborated by the anterior lobe of the hypophysis. The bleeding hormone is separate and distinct from the follicle stimulating and luteinizing hormones. It is not gonadotropic but acts directly on the endometrium and its production is stimulated by the estrogenic hormone as has been proved while its activity is inhibited but not destroyed by progestin. The actual onset of bleeding occurs when a certain concentration of bleeding hormone has been reached provided its action is not inhibited by corpus luteum hormones. Bleeding, or menstrual flow, stops when the bleeding hormone is exhausted.

Following menstruation an ovarian follicle begins to mature and to produce estrogenic hormone. The latter stimulates the formation of the bleeding hormone in a gradually increasing amount. A certain minimal quantity of bleeding hormone is necessary before bleeding can occur. At about the middle of the cycle ovulation takes place and a corpus luteum forms. The secretion of progestin now inhibits the activity of the bleeding hormone although the latter continues to be secreted. Because the corpus luteum begins to degenerate, the bleeding hormone is released. The bleeding continues until the supply of bleeding hormone is exhausted. With the onset of a new cycle, the process is repeated.

The failure of luteinization deprives the bleeding mechanism of its normal inhibitory influence. The bleeding will occur earlier than usual if all other factors remain the same, but may be delayed if the estrogenic hormone production is subnormal or if the pituitary does not respond with the production of the bleeding hormone.

It was long considered that the menstrual flow must be attributed to some toxic substance which produces a hemorrhage by direct action on the endometrium. Frankle believed that such a factor was elaborated by the corpus luteum and recently Hartman suggested that the bleeding is brought about by the action of an anterior hypophyseal hormone.

Allen's "estrin deprivation" theory seeks to explain the occurrence of uterine hemorrhage as due to removal of the ovarian influence following its stimulation of endometrial growth. Hartman's work with monkeys confirmed the findings of Murphy to a large extent, in that the normal cycle was difficult to disturb to any degree with estrin or an anterior pituitary product.

SUMMARY

1. The entire field is contradictory and there is no possible standardization at this time.

2. There has been demonstrated three pairs of sex principles in pregnant urine: (A) estrogenic substance; (B) progesterone; and (C) anterior pituitary gonadotropic-like substances.

3. There are theories which may be considered the actual cause of menstruation: (A) bleeding hormone of anterior pituitary which is stimulated by estrogenic substances

and inhibited by progesterone; (B) a toxic substance which acts directly on endometrium; (C) Allen's estrin deprivation theory; and (D) hormone of the uterus itself.

CONCLUSION

The concensus in regards to normal menstruation is as follows:

There is thought to be a sex center located in the mid-brain which really regulates the anterior pituitary gland. This gland in turn stimulates the ovary through two separate and distinct hormones. One of these hormones stimulates growth of the follicle, ova, and ovulation. The second hormone stimulates growth of the corpus luteum. Finally the ovary stimulates the uterus, first by the hormone derived from the follicles and then by the corpus luteum hormone.

Thus by normal sequence of physiological actions of the aforediscussed glands and organs, the normal menstrual cycle is completed.

802 Huntington Bldg.

EMERGENCY PROCEDURES IN GENERAL PRACTICE

REDDIN BRITT, M. D.
St. Augustine

Experience has convinced me that the emergency demands in the general practice of medicine become more exacting each year. This observation may not be as true of emergencies arising from natural illnesses as of those resulting from accidental causes. Irrespective of their origin, emergencies require attention, and it is the general practitioner, in most instances, who is called and not the specialist or the man practicing in a limited field. We must meet the task and render proper emergency aid, no matter what the nature of the condition, be it minor or major, medical or surgical.

Regardless of the hour, day or night, it behooves us to respond when called if, in our opinion, our services are needed. In many instances when we think we are not needed, we are needed most. If we are unable to respond, we should ascertain briefly what information we can and offer some suggestion as to what should be done until we can go, some other physician can go or the patient can be taken to a hospital.

As physicians serving our community we must learn to stand alone and know how to meet and handle the emergency. If we are to survive in the community, it is imperative that we master as many of the emergency procedures as we can in the fields of medicine and surgery. What procedures may properly and with safety be attempted by the general practitioner, in the home, the office or the hospital, is a debatable question that each practitioner must settle conscientiously for himself. Realizing that what seems to be minor may often become major, he must apply his knowledge accordingly with intelligence.

Those of us who have hospital facilities available are at an advantage over those who do not. In consequence, we often forget a good many procedures that can be carried out in the home, in the office or at the site of the emergency, that will aid in diagnosis and thereby expedite relief for the patient, thus incidentally proving economical for him and saving time for the physician. Particularly in the field of medicine, and to a lesser degree in obstetrics and pediatrics, are these diagnostic measures of value. If we are to practice our art with precision and at the same time defend ourselves against the ravages of disease and injury, we must be equipped with the necessary apparatus to do certain laboratory procedures in addition to carrying out the therapeutic procedures indicated. We should be able to take simple blood counts, blood sugars, blood smears, throat smears and cultures, and do urinalyses and spinal punctures. Also, we must not forget the catheter and the stomach tube if we are to meet such emergencies as may arise in cases of diphtheria, meningitis, poisoning, acute retention, malaria, acute pyelitis, convulsions and acute appendicitis.

Well do I remember an obstetrical case in which I was called to pinch-hit for another physician, who was absent from the community. The patient lived about forty-five miles from a hospital and thirty or more miles from the nearest doctor.

CASE 1. A white woman, aged 41 years, was in her third pregnancy, the others having occurred at the ages of twenty-one and thirty-one. When examined, she was in active labor, preeclamptic, waterlogged, nauseated and vomiting, with the stomach full of fresh blackberry cobbler. The membranes had ruptured, and the fetal

Read before the Third Annual Meeting of the Northeast Medical District, Palatka, September 14, 1939.

head was in deep transverse arrest; the tones of the fetal heart were very rapid and of poor quality. The patient's blood pressure was above 160, and the urine, examined just before the call was made, was found to be loaded with albumin and casts.

With all supplies sterile, after the forceps had been boiled for fifteen minutes, preparations for delivery were made. The patient was given ether by her stepdaughter, who had had about one year of training as a nurse. Before the forceps could be applied, the patient's stomach became dilated. Fortunately, the stomach tube and the duodenal tube were in my extra bag, but by the time this condition could be attended to the baby was thought to be dead. Delivery was accomplished by forceps and the child was born dead.

The dilatation of the stomach was relieved by leaving the duodenal tube inserted for about thirty-six hours, and through it liquid nourishment was given. Between twelve and twenty-four hours after the removal of the tube, the stomach again became dilated, and before I could reach her, the patient died.

In this case there was no telephone in the home, and both the patient and her family were unwilling even to make an attempt to get her to a hospital.

What emergency in medicine can be more exacting than a case of coronary thrombosis in which the patient is a friend whom you have been attending over a period of years and who has outlived by two or three years the prognosis made by a competent internist?

Case 2. A white woman, aged 57 years, was brought to the hospital on June 19, 1938, acutely ill with coronary disease and in a state of shock. For more than five years she had been the victim of progressive cardiorenal vascular disease with pronounced peripheral sclerosis and had had hypertrophy of the heart with hypertension, but without clinical evidence of valvular disease. The blood pressure had varied from 170/86 in the early period of treatment to 225/130 at the time of admission when the thrombosis occurred. On examination, the patient was cyanotic and was suffering extreme pain in the precordial region; tachycardia, irregular pulse and all the signs of cardiac and peripheral circulatory interference including early evidence of pulmonary edema were present. There was a moderate reduction in blood pressure to 160/110.

The patient was given 1/2 grain of morphine, 1/100 grain of atropine and amyl nitrite by inhalation. An ice cap was applied to the cardiac region, and sedation with morphine was continued for pain with doses of 1/4 grain from every thirty minutes to three hours apart as indicated. Phenobarbital in doses of 1 1/2 grains was given when needed for rest as the morphine was administered for pain only. Oxygen was given by nasal catheter.

On July 10, after three weeks of hospitalization, the patient returned to her home and remained in bed most of the time for the next two months. Gradually she was allowed to be up and about the house and to go for an occasional ride. She was given theobromine and phenobarbital to control pressure and nervousness, and occasionally sodium nitrite to relieve pain, supplemented by inhalations of amyl nitrite.

Seven months after returning from the hospital, she awakened from sleep one day, coughed and immediately became semiconscious. When I arrived, she was showing signs of impending cardiac failure, including pallor, a cold, clammy skin, moderate dilation of the pupils of the eyes, and a frothy sanguineous fluid from the lungs filling the mouth. Immediately she was given 1/4 grain of morphine and 1/75 grain of atropine, also three cat units of digitalis intravenously followed by coramine. By this time an emergency tank of oxygen with nasal catheter had been obtained, and oxygen was given at the rate of about forty bubbles a minute through water until the acute stage of the attack subsided. Thereafter she was kept digitalized, and for five months she remained more or less of an invalid, seldom going farther than from her room to her porch. On May 11, 1939, a similar attack occurred, and a repetition of these procedures again brought her through.

Six weeks after this last attack and one year from the time of the first attack, the patient retired feeling badly but in no pain. I was called during the night and on arrival within thirty minutes after the onset of the acute stage of the attack, I found her unconscious, pulseless and only gasping for breath. All efforts at resuscitation, including the administration of oxygen, failed.

In the field of surgery the general practitioner plays a most important part. Here again there are many things he can do. In the majority of cases he should be able to diagnose the acute surgical condition, and when he cannot, it is often possible for him to render some relief until a consultation can be arranged. In cases of massive hemorrhage of gastric or duodenal origin he should insist on hospitalization, quiet the patient and treat the shock by intravenous methods including transfusions.

Likewise, in accidents, when seeing major or minor injuries, he should first of all scrutinize the field, determine the general condition of the patient and estimate the damages. In simple scalp, hand, trunk and other wounds of the body he may then do the procedures that will prevent minor injuries from becoming major problems, thus preventing simple fractures from becoming complicated ones. In other words, he should render adequate emergency treatment and not hesitate to call for assistance in the early stages of therapy if in his opinion the condition is questionable or assistance advisable.

Also, the general practitioner should be able and prepared to cleanse wounds properly and to suture them, not forgetting the fact that "cleanliness is godliness and to be godly, we must be clean." So, before suturing, let us see that all hair has been shaved from about the part, that the skin and not the wound has been washed with good soap and water and that it has been cleansed further with alcohol or other antiseptic of choice. We may then proceed to cleanse the wound by irrigation and the application of sterile warm saline, remove all devitalized tissues, suture carefully all structures anatomically and dress the wound. Last but not least, when in doubt, we should

administer prophylactic treatment for tetanus and gas gangrene.

If called to treat a snake bite, as some of us occasionally are, act quickly. Lay the wound open and apply suction by some means constantly, with tourniquet applied. Do not hesitate to give morphine in large doses, and give the serum, repeating the dose in four hours or earlier if the patient lives. Give supportive treatment intravenously, such as glucose and saline. Remember that some lives may be saved. Out of three or four cases I have seen, I recall only one patient who lived.

In the smaller communities and rural districts, injuries resulting from automobile accidents frequently exact all our skill and ingenuity. For instance, I was recently called to treat a case of simple fracture of the tibia and fibula and a compound fracture of the femur on the left side in a patient suffering from shock and loss of blood. This condition was complicated by a fractured pelvis with involvement of the hip joint, also on the left side, which was neither complained of nor recognized until some time after fixation of the fractured femur had been completed and other emergency treatment given.

CONCLUSION

Emergency procedures in general practice tax the ingenuity and skill of the physician. They are sufficiently difficult with the most modern conveniences of the up-to-date hospital, but in a community without these facilities, the physician's responsibility is greatly increased. I have outlined only a few of the conditions that have come under my observation.

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GARLIC: AN OCCUPATIONAL FACTOR IN THE ETIOLOGY OF BRONCHIAL ASTHMA

CASE REPORT

GRAHAM E. HENSON, M. D.
Jacksonville

A case of more than usual interest is that of A. A., an adult white male who presented himself with the following history.

A former resident of Minnesota, 22 years of age, married, he had suffered with a seasonal pollinosis for four years. In 1937 he had been given cutaneous tests for all of the tree, grass and weed pollens indigenous to the section of the country in which he was living and had been found very definitely positive to the entire ragweed group. He was given the common ragweed pollen extract subcutaneously in the customary increasing doses reaching a maximum dosage of 6,000 units, acquiring a tolerance that rendered him free of symptoms for the balance of that season and the greater part of the 1938 season.

Late in September of 1938 he developed a return of his "hay fever" symptoms but in a less aggravated form than in previous attacks. Just a month later he developed a bronchial asthma of a mild nature with attacks occurring every evening, increasing in both duration and intensity so that when he first came under my observation, on November 11, he was losing four or five hours of sleep each night. A complete allergic study was undertaken, giving all the food protein, epidermal and miscellaneous protein, the tree, grass and weed pollen extracts and the bacterins. Both the cutaneous and intradermal methods were employed. His tolerance to the ragweed group had become lost as evidenced by positive reactions to the entire group—lineal cutaneous tests of 1 cm., producing urticarial wheals from 3 to 4 cm., at their greatest diameters. He gave negative reactions to all the epidermal, miscellaneous and bacterial protein extracts and to all the food proteins with the exception of garlic. A lineal cutaneous test of this vegetable protein extract measuring 1 cm., produced an urticarial wheal 4 cm., at its greatest diameter with numerous pseudopodia measuring from 1 to 2 centimeters.

His occupation was that of a foreman in the sausage department of a large wholesale meat packing plant. In the making of sausage a powdered garlic was being used and the air permeated with the odor of garlic at all times. At my suggestion he substituted the garlic kernel for the powdered form. On the evening of the second day following this substitution he went to bed at an early hour, slept all night and has been entirely free of any symptoms of asthma since that time, now a period of over seventeen months.

The nightly occurrence of asthmatic attacks increasing in intensity, the very positive reaction he gave to garlic, together with the remarkably prompt disappearance of all asthmatic symptoms as soon as the offending powder was removed, leave no doubt that that part of his occupation involving the use of powdered garlic was the sole etiological factor of his asthma.

438 St. James Building.

EUGENIC STERILIZATION IN FLORIDA

Lydia Allen DeVilbiss, M. D.
Miami

Congratulations on the article "Eugenic Sterilization" by Dr. A. T. Cobb in the November Journal. I wish however to correct a slight error in this otherwise excellent article —the statement that sterilization may not be legal in Florida.

It is true that there is no eugenic sterilization law in Florida but neither is sterilization forbidden. Sterilization therefore in this state is not illegal. Several hundred such operations on both male and female have been performed in the local hospitals on recommendation of a member of the staff of this Clinic.

Sterilization is recommended when in the opinion of the physician such operation would benefit the health or welfare of the patient. It is done by voluntary consent and handled the same way as any other surgical procedure except that a release is taken in all cases. For sterilization of the wife, the release is signed by the patient and her husband; for a minor, the release is signed by the parents or guardian. Appended is a copy of the release prepared by the attorneys for the Mothers' Health Clinic and which has successfully withstood at least one test, as follows:

A vasectomy was performed on a male diagnosed as psychopathic with homicidal tendencies. He and his feebleminded wife had already produced nine children to be supported by the community. Several years after the vasectomy he was sent to Raiford on a charge of incest. On his release he consulted an attorney as to a possible suit against the Clinic. When the attorney read the release which the patient had signed in the presence of witnesses, he informed the patient that he had absolutely no recourse.

A principle of medical jurisprudence which is little known or understood is that when a patient submits himself to an operation with a specific request for a specific procedure the surgeon is obligated to perform it if possible. He can, of course, refuse to operate, but if he does operate upon a patient who has requested sterilization, particularly in writing, he is obligated to do it if surgically possible.

Director, Mothers' Health Clinic.

Some years ago the Clinic sent a number of women to the charity hospitals with unilateral pyosalpinx with a verbal request for sterilization. Some of the surgeons removed only one tube. As a result many of these women had to return to the hospital in a year or so to have the second tube removed. This risk of a second operation may be justifiable if the woman is intelligent, desires another child and fully understands that she possibly may have to undergo a second operation. The surgeons were under the impression that a requested sterilization was not legal. When the principle of jurisprudence was explained and the patients were sent with properly signed releases, there was no further difficulty in securing sterilization in the hospitals of this area for charity patients who would benefit by the operation.

In the sterilization of the female the method of choice has been the excision of a V shaped wedge from the cornua. In this procedure fine ligatures are used. At least one case of pregnancy is known to have followed this operation, which was possibly due to a coarse suture which permitted the ovum to enter.

The method of sterilization in the female by coagulation of the cornua, instead of the Dickinson cautery, was developed by the staff of the Mothers' Clinic and reported in the *Journal of Obstetrics and Gynecology*. Recently a method has been developed in New York City to perform this coagulation under the fluoroscope. It is useful in cases which may not be surgically operable but it should not be tried in the presence of venereal disease. An old gonoccoccic infection may be re-established and in the presence of syphilis an unpleasant hemorrhage may result. The method of sterilization by sperm immunization is effective only for an indefinite period and laboratory precipitin tests to establish immunity are not always satisfactory.

Vasectomy is a milder procedure which can be done in about twenty minutes under local anesthesia in any surgical office. The staff of the Mothers' Clinic is now performing this operation with a single median incision. The patient is required to present a specimen of semen, which is not permitted to get chilled, within 12 to 14 weeks following the operation. Sperm will persist for an indefinite period and

no patient is released until the sperm report is negative. Vasectomy is followed by a general feeling of well being and often by a decided improvement in health. It also exerts a stabilizing effect on blood pressure. High blood pressure is reduced quickly, rising again slowly but not to the previous high reading.

The Clinic frequently must refuse applications for vasectomy because of the youth of the applicant or for lack of sufficient therapeutic or eugenic indications.

The many authorities who have examined the present trends in the birth rate are unanimous in their opinion that the American population is being produced by those of the lowest social economic and intelligence levels at about twice the rate which obtains for those in the higher brackets. Birth control propaganda is held to be largely responsible. Parents of intelligence who are able to employ a private physician can obtain scientific contraceptive advice while patients who are dependent upon public clinics and hospitals are denied it with very few exceptions. The most notable exception is the state of Carolina where the State Board of Health has already established more than sixty clinics where the indigent sick are given the same intelligent scientific advice as is procurable from private physicians. In one year the maternal mortality has shown a gratifying decrease. In four years, the maternal mortality in Dade County was cut in half by the same method.

Contraceptive advice, however, is not sufficient for the feebleminded, psychopathic, alcoholic, epileptic and other persons unfitted for parenthood, for all too frequently they will not or cannot cooperate. For these individuals only sterilization is effective in preventing them from further burdening the community with their diseased and defective offspring. While there is a high infant mortality in these groups, yet it is not sufficient to offset their terrifically high birth rate. Families of ten and twelve are common among them and even twenty and more children have been noted in the records of this Clinic. This high birth rate persists also in the succeeding generations until one feebleminded pair, in several generations, can produce a whole colony of undesirables.

The tendency in legalizing sterilization is away from the compulsory toward the voluntary. This is much simpler to administrate as it does away with the cost and delay of court procedure and gives the responsibility to the doctors the same as for any other surgical procedure. The alternative to voluntary sterilization for a feebleminded or insane person would be commitment to a custodial institution. Those who do not have antisocial tendencies, if sterilized, might be free to marry and live what is for them a normal life in the community.

One type of bill which has been recommended by experts for the State of Florida would require any hospital supported by public funds to accept for sterilization patients who presented themselves with the proper recommendation from the examining physician. Until such law, or some other, is passed, sterilization is not illegal and can be performed by any surgeon in any hospital when it is deemed necessary or conducive to the patient's health or welfare.

Every feebleminded or psychopathic man or woman sterilized in Florida is a gain in improving the State's general health and welfare. Each sterilization removes from the tax payers certain items of cost which further pregnancies and support of the families would entail. Sterilization of deficients and defectives, by helping to raise the general intelligence level, is a valuable contribution to the preservation of a free Democracy. It should be looked upon by the medical profession as a patriotic duty as well as an opportunity to perform valuable services to the State.

RELEASE FORM

Miami, Florida,

Date_____

I hereby request and consent to have Dr._____ perform a sterilization operation for me and also to perform and give such other medical and surgical procedure and treatment which in his opinion shall be advisable and beneficial to me and which in his opinion shall be necessary to my welfare.

I further agree to release and do hereby release and discharge the said Dr._____ from any and all claims, demands, suits, actions or causes of action or actions arising out of or by reason of his services, treatment, medication or surgery as prescribed and given or performed by him in this case.

_____ (Seal)

_____ (Seal)

Witnessed:

_____

_____

Sign by both husband and wife. One copy is to be retained by the Mothers' Health Clinic. One copy to be given the Doctor or Hospital.

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352 N. E. 32nd St.

LOW BACK PAIN: BACKALGIA

Eugene L. Jewett, M. D.
Orlando

Low back pain or backalgia, as Dr. J. J. Moorehead so aptly calls it, is one of the "bug-a-boos" of medical practice. Every doctor gets patient after patient complaining of acute, recurrent or chronic back pain. There are so many different types of back pain and so many causes for this condition that one is bewildered in his diagnosis and is haphazard in his therapy. A cursory history, a passing palpation of the low back, generally made with the clothes on, and the recommendation of diathermy or the wearing of a sacro-iliac belt comprises the average doctor's treatment of such a case. If there is time, and the doctor feels inclined to do so, a thorough search for a focus of infection may be made, and even a prostatic or vaginal examination done. However, rarely does the doctor work at this condition with the entire potential causation of this pain clearly in his mind. The following plan will, I believe, bring better visualization and more successful treatment of these common conditions. I am listing the various etiological factors in order better to keep them in mind.

ETIOLOGY

Intrinsic Conditions—Those associated with pathology or change in the low back skeletal, muscular or neural tissues.

1. Poor posture with bad body mechanics causing undue strain on the low back. Made worse by obesity, pronated weak feet, and faulty footwear.

2. Direct and indirect trauma with various injuries to all the structures in the involved area resulting in hematoma with organized fibrosis and adhesions to neighboring structures. Fractures of the back and injuries to the intervertebral disks are not to be discussed under this heading. Sprains: Refer to joint injuries. Strains: refer to muscles, tendons, or ligaments.

3. Myofacitis or fibrositis from a focus of infection: lumbago.

4. Neuritis and neuralgia from a focus of infection: sciatica, intercostal neuralgia. Herpes zoster. This condition may be both intrinsic and extrinsic; the former from the local neural condition, whereas the focus of infection would be an extrinsic factor. Diabetes mellitus.

5. Arthritis of the lumbosacral spine.

6. Abnormalities of the spine and pelvis: spina bifida occulta, sacralization of the fifth transverse process, six or four lumbar vertebrae, dorsal type of facets, prespondylolisthesis and spondylolisthesis, reverse spondylolisthesis.

7. Infection of vertebrae: osteomyelitis; Pott's disease.

8. Tumors of the spinal cord, nerves, lumbosacral plexus, pelvis, spine. Nucleus pulposus ruptures into the spinal canal, which are visualized by lipiodol intrathecal injections and roentgenograms in the upright and lying positions.

9. Myelitis. This condition, of course, is seldom localized to one part of the spinal cord.

Note: This paper will not take up coccygodynia or other conditions in this region.

EXTRINSIC FACTORS

10. Pelvic disorders, soft tissue tumors, and malposition of the uterus.

11. Prostatic diseases and other urinary-tract conditions.

12. Constipations and visceroptosis.

13. Syphilis with tabetic crisis. Syringomyelia. Here again there is both an extrinsic and intrinsic condition.

14. Pregnancy—with relaxation of the pelvic ligaments and joints. Whether or not there is a relaxsor substance of endocrine origin or a hormone is under investigation at this time.

PATHOLOGY

Varied and depends on the etiology.

SYMPTOMS

Varied from slight, dull, dragging sensation to attacks of severe knife-like pain with or without radiation throughout the abdomen and pelvis and down the leg.

DIAGNOSIS

With these etiological factors clearly in mind it is most important to diagnose accurately the condition in each individual case. The finding of an abscessed tooth, a diseased tonsil, or a prostatic condition may be the answer. Any such focus should, of course, be removed at once and if the pain in the back clears up we are fairly certain of a correct diagnosis. However, we all have seen many patients with teeth out, tonsils removed, who had undergone various and sundry gynecological operations, but who were still having their same low back pain. A thorough search for any malfunctioning of the gastro-intestinal or genito-urinary tracts should be made. A gastro-intestinal series, a barium enema, cystoscopic examination or pyelogram may be necessary, and should be undertaken if indicated. Urine examinations, blood count, Wassermann, and thorough neurological examinations are all important. Let us not forget the role that upper respiratory and pulmonary foci of infection play in these back conditions.

Usually, however, the orthopedic investigation of this pain in the back is most important and altogether too often is least considered. A careful history must be made of the patient's

Read before the DeSoto-Hardee-Highlands-Charlotte-Glades County Medical Society, Wauchula, October 11, 1938.

occupation and daily habits, so as to determine whether the patient stands and sits correctly, sleeps on too soft a sagging mattress, and whether there is chronic strain or too much or too little activity. A thorough examination must be made noting the posture; condition of the muscle tone of the body; obesity, if present; any abnormal curvatures of the back; any tilt of the pelvis. In these low back conditions the spine may tilt either toward the affected side or away from it; but generally acute cases show a tilt away from the involved side whereas chronic conditions with a superimposed neuralgic factor show the tilt toward the affected side. At times we find alternating scoliosis where the curvature shifts gradually or suddenly from one side to the other. The exact mechanism of these curves is not within the scope of this paper. We must also note whether the legs are straight and if they are the same length, the condition of the feet and arches, and how the patient walks and stands. Also, when the patient stands up with the legs straight and flexes to the floor, another point to notice is whether the anterior iliac spines go down to the same level as the greater trochanters. A failure to do this indicates shortening of the hamstrings, which is often found in old painful back cases.

Most cases of so-called sacro-iliac strain or disease, whether of traumatic or chronic faulty dynamics origin, are really lumbosacral conditions. This latter joint is the one that takes most of the stress from excessive labor (especially of a stooping or lifting type), or obesity with faulty body mechanics.

The points of tenderness in a back usually help us out a great deal in localizing the trouble. Sacro-iliac strain, per se, will result in definite tenderness over this joint, but the tenderness may be in different points along this synchondrosis. Iliolumbar ligament involvement is revealed by tenderness over these ligaments which stretch between the posterior superior border of the ilium and the transverse process of the last lumbar vertebra. This region is a little above and somewhat lateral to the sacro-iliac joint, which is itself covered by the posterior sacro-iliac ligaments. Lumbosacral strain generally causes tenderness over this junction, whereas lumbar backache is associated with tender spastic muscle groups lying along the mid-lumbar vertebral column. With involvement of the interspinous ligaments of the lumbar spine there is definite tenderness between the tips of the spinous processes.

We have various tests to give us the differential diagnosis between sacro-iliac and lumbosacral conditions. I shall merely name some of these tests, the exact methods of eliciting and significance of which may be found in any of the various orthopedic books. If forward flexion of the trunk is performed through a greater arc with less pain in the sitting than in the standing position (with the knees straight) it points to a sacro-iliac and not a lumbosacral condition. In case of lumbosacral strain the lumbar spine is held rigid when the patient forward flexes, with practically all of the movement being carried out in the hip joints. The hamstrings will be the final check on this movement. In case of sacro-iliac strain, however, the lumbar spine is uninvolved and will flex as far as possible, the motion being stopped by the rotation of the pelvis on the sacro-iliac joints through the action of the taut hamstrings. At this point strain is put on the sacro-iliac joint by the hamstrings and hence we get a greater range and less pain when these muscles are relaxed—as in sitting.

Hyperextension will be limited in both conditions because of the stress on all of these joints. Rotation of the trunk will be about normal in the lumbosacral case because little if any rotary motion occurs in this joint normally. In a sacro-iliac condition rotation will be limited and painful because of pressure brought to bear on these joints in this maneuver. When the patient lies supine the exaggerated lumbar lordosis is often seen; it remains present in the case of lumbosacral strain because of protective muscle spasm. However, at times we find a persistent flattening of the lumbar lordosis, which remains until the condition is cleared up. In sacro-iliac strain the patient can voluntarily flatten the lumbar lordosis by flexing the hips which relaxes the pull of the hamstring muscles. In the latter case the lumbar spine is not affected and the relaxed hamstrings do not exert tension on the sacro-iliac joints. Gaenslen's, Mennell's, Kernig's, Goldthwait's, Lasegue's (the straight leg raising), McBride's tests, if positive, are

indicative of sacro-iliac condition and may be elicited on the same or the opposite side of the involved joint. Generally with a right sacro-iliac strain the pain will be more pronounced in this joint area when the straight left leg is raised or when McBride's maneuver is carried out using the left leg. However, this is not always true, and in fact the exact evaluation of the above test is at times very difficult. Usually in these low back cases there is pain and tenderness all across the back and patients complain when either leg is tested. Another important point to notice during the straight leg raising is when the pelvis begins to rotate. The comparison with the opposite side will often show a wide variation in this respect.

In performing Gaenslen's test or some of the other tortion tests there is often a click or snap heard, which may be either in the sacro-iliac joint, the lumbosacral articulation, or in the ligamentous structures above these joints. Often this snapping or clicking is accompanied by relief of pain, and I believe that this is because the joint surfaces have been reapposed. Probably there has been a slight rotation of the articular cartilaginous plates. Some authors think that the slipping of a ligament or tendon over a bony prominence may be the origin of this snap or click. Ober's test should always be performed with either leg, and some authors are reporting a rather frequent positive finding of this test. In about one hundred consecutive cases I have not found one single positive test.

A history of direct or indirect trauma may be obtained and this may be the start of the patient's complaint or just an aggravating factor. We may get a contusion of soft or bony structures or there may be trauma to the joints themselves, often with injury to the articular cartilages. Usually people will blame their backache on a fall or strain when in reality they had chronic backache a long time before but not of a nature serious enough to cause disability or great pain. Direct injuries to the soft tissues are usually not difficult to diagnose but the various traumata affecting the joints in the low back region are a much harder proposition to interpret and localize. A sudden slip may produce the same pain as a case of chronic poor posture, but the actual damage done may be far different from that in the other condition or, again, a similar maladjustment may be present in both cases. When we have pain in the back from stretching of fibrous tissues or adhesions the pain is less in the morning and more at night (increased by activity). Certain positions generally are more painful than others. Pain which has as its basis congestion or inflammation is generally a continuous ache and is made worse by activity and persists even during rest. This pain is not relieved by changes of position and there is stiffness after a rest period with more pain when the back is first moved after rest. When both of these conditions are present in the back at the same time it is most difficult to make an accurate diagnosis.

Roentgenograms are important in these back conditions, although many of them will be negative for any bony alteration or pathology. Anteroposterior and lateral views will usually suffice with, however, the oblique ones proving to be of more and more importance. These oblique plates are the only ones which will show the lumbar articular facets clearly or sagittal views through the sacro-iliac synchondroses. Also an incomplete linear fracture may be visualized through an oblique plate and not seen in the anteroposterior and lateral ones. At times a malaligned sacro-iliac joint may be identified by an elevation of one pubic bone above the other at the symphysis with no other positive roentgen evidence present. Of course, any malformation such as spina bifida occulta, sacralized last lumbar transverse process, or spondylolithesis will be seen by proper roentgenograms. With intrathecal lipiodol injections it is possible to visualize and localize a nucleus pulposus rupture into the spinal canal. This is relatively a new procedure and opens up a wide field in the correct interpretation of low back pain. Personally, I have had no experience with this method. It goes without saying that the x-ray is most important in the diagnosis of tumors, Pott's disease, and osteomyelitis. Also, Marie Strumpel's disease (spondylose rhizomelique) can be early detected by ankylosing changes in the sacro-iliac joints and later on by the same changes in the entire spine. Of course, in this condition the clinical history and examination is clear-cut and easily diagnosed.

Arthritis in the low back region may be at times diagnosed by the history of the case, symptoms, physical findings, and roentgenograms. At other times it is most difficult and usually marked hypertrophic osteoarthritis in the upper lumbar and dorsal spine will show no roentgenological change in the low back. Often we find lipping, however, in the lower borders of the sacro-iliac joints or in the articular facets or sacro-iliac joints themselves in the oblique views. There may be atrophic or infectious arthritis in the lower spinal joints without any direct roentgenological evidence. When the process gets further advanced we do see a thinning of the discs, rarifaction and roughening of the vertebral body borders, and then lipping may begin to be visible. In other words, in most of these cases that come to our attention there is a mixed atrophic and hypertrophic change present. The usual diagnostic methods for arthritis elsewhere in the body applies to the condition here.

TREATMENT

1. Probably the most common cause or contributing cause to low back pain is poor posture with or without overweight. In these cases we see the rounded shoulders, the forward protuberance of the head and abdomen, the exaggerated lumbar lordosis, pronated painful feet and ankles. The treatment for this complex syndrome is difficult and depends to a large extent on the intelligence and cooperation of the patient, his age, general health, and the type of his work or stage in life. In *Body Mechanics* by Drs. Goldthwaite, Brown, Swain, & Kuhns you will find an excellent treatise on these conditions. The average practitioner, however, can not carry out such a detailed exacting regime of treatment and will have to depend on a less elaborate armamentarium. The weight can be taken off by dieting and exercises, and the posture is possible of improvement through constant attention of the parents and friends and frequent checkups by the doctor in charge. Repeated strapping of the back, the wearing of sacro-iliac and lumbosacral supports and, in some cases, lumbodorsal supports, with occasionally the use of one of the various rigid supports, will be of great benefit to the patient.

The feet may have to be manipulated and supported by proper shoes and arches, with or without lifts to correct faulty weight bearing lines. We have several exercises, with which you are all familiar, that will improve the muscle tone of the feet and lower leg muscles, which are the supporting structures for the feet and arches as well as the motivating power for the members. The ligaments should only restrict abnormal mobility of the joints and should not support them. Footwear should be of the orthopedic or semi-orthopedic type and the stockings or socks should not be too tight.

Abdominal and back exercises are important for these poor posture cases, but should be gradually increased and not made too hard for the weakened musculature. In between the regular exercises some sort of support may have to be worn. The physician or trained physiotherapist should carefully instruct the patient as regards his exercising, and should see him at regular intervals. Often golf, tennis or swimming may help, with the latter being probably the best all around developer that we have in the field of sports. A business man will usually use a stationary machine or row a boat, but will not engage in just exercising. If there is a gymnasium class in the community, this is generally a good thing to have him join. Physiotherapeutic measures often will help—at least symptomatically. A hard mattress is a great help to most of the patients.

2. Patients with acute direct and indirect trauma should have their backs supported or strapped, with rest in bed until the acute symptoms have subsided and healing has begun. There are various degrees of severity of these injuries, and most of them will not seriously incapacitate a patient. After a week or two of immobilization of the back through a plaster cast, strapping, sacro-iliac or other low back support, normal activity may be engaged in. If, however, the patient is seen after fibrosis and adhesions have formed we have a different picture. These conditions will need more extensive physiotherapy with diathermy heading the list, combined with manipulations and probably novacain injections. Usually manipulations under anesthesia are not necessary but every now and then anesthesia has to be employed. Several manipulations can be

done on the conscious patient, and I follow a regular routine whether the injury be in the lumbosacral or sacro-iliac joints. Of course, if it is higher up in the lumbar area or in the iliolumbar ligaments these manipulations are not as useful.

With the relaxed patient on his back and the operative hands placed under the small of the patient's back, the back and buttocks of the patient are suddenly lifted from the table. This maneuver usually is painful but does tend to relax and stretch the low back joints, and may result in a click and relief to the patient. After several of these lifting movements the patient is made to grasp his flexed knees with his hands, thereby flexing the thighs and his head and body is made into a ball and rocked back and forth on the spine. Then the patient, turned on one side, grasps the under flexed knee as tightly as possible (as in Gaenslen's test) thereby rounding the back and obliterating the lumbar lordosis and also fixing the pelvis. The operator then faces the patient, grasping the patient's upper shoulder with one hand and the iliac crest with the other with the upper leg lying in moderate flexion behind the other. Then, while the patient's shoulder is pushed suddenly backward and downward, the iliac crest is pulled forward, the resultant motion being rotation of the spine and pelvis. Oftentimes this maneuver will elicit a click, and at times the patient will notice relief from pain at this instant. Then the patient is turned on the other side and the maneuver carried out exactly as before. Next the patient is placed prone and, by putting one arm under the patient's thighs and the other hand over the sacrum, sudden hyperextension is produced by lifting the patient's legs from the table, at the same time keeping the sacrum and rest of pelvis on the table. This will often be painful to the patient, but every now and then a click or sudden relief of pain will be encountered. After this procedure, it is my practice to strap the back (the tape completely encircling the pelvis). All hair, of course, should be carefully shaved off and tincture of benzoin applied to the skin, which will in most cases lead to a less painful and easier removal of the adhesive.

Every now and then it seems advisable to hospitalize a patient, and either give him a more thorough and elaborate set of manipulations similar to those described or follow Baer's manipulative treatment. Of course, these patients should be completely anesthetized, and are best kept in the hospital at least a few days after the manipulations. A day or two after this treatment they are started on physiotherapy, and are allowed to be ambulatory within a week or two after the treatment. Some patients seem to do better in a plaster shell or cast, generally with the thighs somewhat flexed if the cast goes down to the knees. This immobilization should not be left on longer than two weeks, at which time physiotherapy and exercises are started.

3. The painful back from myofascitis or fibrositis, whether it be from a recognizable focus of infection or not, presents a somewhat similar picture to the one of trauma. The pathology may be different, but the clinical picture is very similar except that the acute symptoms are more widespread and no hematoma can be felt. There may be muscle spasm, however, with or without an abnormal curvature of the spine. If a focus is found, of course it should be removed, but in the meantime the back should be treated by rest or immobilization with or without the use of physiotherapy. With the subsidence of the acute symptoms the same general treatment should be carried out as given above for traumatic cases. Often, however, the clearing up of a focus will lead to a subsidence of the back pain in short order. In these chronic cases novocain injections into the involved areas will every now and then produce a startling result, which may be permanent.

4. When we find a neuritis or neuralgia from a focus of infection the patient is best treated in bed with or without Buck's extension on the lower extremities until the focus is cleared up. These people usually feel better with the thighs and knees somewhat flexed and at times with a small pad beneath the lumbar spine. In many cases, however, sciatica is really secondary to sacro-iliac or lumbosacral conditions and clears up with adequate therapy to these regions. Perineural injections of normal saline or novocain are at times well worth trying, although the good result will not by any means be uniform. The practice of "stretching" these sciatic nerves is happily on

the decline. Later on, when there is absolute evidence of a quiescence of the condition and with adhesions present, some such maneuver as Baer's may be carefully and cautiously carried out. A sufficient number of more or less serious injuries to the sciatic nerves have been reported from this maneuver to make us wary of its universal use.

These patients need massive and continuous doses of Vitamin B_1, and often intravenous injections of iron and arsenic help.

5. The treatment of arthritis of the joints in the lumbosacral region depends largely on the type of arthritis present. Acute atrophic or infectious arthritis demands rest in bed with a thorough search for a focus. Do not forget that gonococcus is prone to produce such a condition in the low back and clearing up of the primary infection will often at once lead to rapid cure of the back ailment. The old osteoarthritic spine, on the other hand, will need only some type of support, usually plaster or Castex jackets or a low spine brace. The cloth braces and supports are useful only in the less severe cases. Manipulations here must be undertaken with care and lack of force, because of the danger of breaking off the spurs. If the pain is a part of generalized arthritis, the treatment for the symptomatic condition will help the local back area.

6. The various abnormalities of the spine and pelvis if not very pronounced generally respond to physiotherapy, exercises, rest and supports. If the condition is pronounced and very painful or deforming, grafting or ankylosing operations must be done. People with these backs must be warned not to attempt anything that might injure them still further or put too great a strain on the defective region.

7. Osteomyelitis and Pott's disease in the low back are treated the same as for these conditions elsewhere in the vertebral column. The details of this therapy are not in the scope of this paper.

8. Tumors of the spinal cord, the lumbosacral nerve plexus, or of the vertebral column or spine demand special investigation and highly specialized treatment. The main duty of the general practitioner in these cases is to diagnose them and turn them over as rapidly as possible to the proper specialist.

9. Infectious myelitis is generally fatal although recent work has seemed to offer some hope from massive doses of Vitamin B_1 intrathecally.

EXTRINSIC CAUSES

10. 11. 12. For the patients with extrinsic causation of low back pain the correction of the primary defect plus supportive therapy for the back will generally clear up the situation. I shall not go into the details of treatment of genito-urinary, gastro-intestinal, or gynecological conditions. It might be said here, however, that Dr. Fred Albee has reported excellent results in these low back cases from colonic irrigations plus alteration in the bacterial flora of the large intestine.

13. Syphilis demands general antiluetic treatment, but for syringomyelia we have no cure, and the only thing we can do is support the back properly, restrict activity and allay pain.

14. A painful back in pregnancy is best supported with a well fitting corset or brace, which will support the back and pelvis but not interfere with the fetal movements or growth.

CONCLUSION

A "backalgic" back should be investigated the way one attacks a crossword puzzle or attempts to solve a mystery story. The physician often will have to bring into play all of his faculties, much of his medical knowledge, and a great amount of perseverance. Conditions that have been present for years usually can not be overcome in a day or two. A doctor must not only find the cause of the ache and treat the condition, but must improve the patient's mental attitude and enlist his optimistic cooperation and help.

The orthopedic aspect of these low back pains is often grossly neglected or overlooked. A plea is therefore made for a more careful history, a more painstaking thorough examination, and the establishing of the correct diagnosis as soon as possible. With the diagnosis made, the correct mode of attack will be evident, and we will then be able to say goodbye to the "shot in the dark" method of treating these afflictions of the low back.

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Robert H. McGinnis, M.D., 1915 ..... *Jacksonville*
Frederick J. Walter, M.D., 1918 ..... *San Diego, Calif.*
William E. Ross, M.D., 1919 ..... *Jacksonville*
William P. Adamson, M.D., 1920 ..... *Tampa*
H. Marshall Taylor, M.D., 1923 ..... *Jacksonville*
John C. Vinson, M.D., 1924 ..... *Tampa*
John S. McEwan, M.D., 1925 ..... *Orlando*
H. Mason Smith, M.D., 1926 ..... *Tampa*
John A. Simmons, M.D., 1927 ..... *Arcadia*
Frederick J. Waas, M.D., 1928 ..... *Jacksonville*
Henry C. Dozier, M.D., 1929 ..... *Ocala*
Julius C. Davis, M.D., 1930 ..... *Quincy*
Gerry R. Holden, M.D., 1932 ..... *Jacksonville*
William M. Rowlett, M.D., 1933 ..... *Tampa*
Homer L. Pearson, M.D., 1934 ..... *Miami*
Herbert L. Bryans, M.D., 1935 ..... *Pensacola*
Orion O. Feaster, M.D., 1936 ..... *St. Petersburg*
Edward Jelks, M.D., 1937 ..... *Jacksonville*
Leigh F. Robinson, M.D., 1939 ..... *Ft. Lauderdale*

A. M. A. HOUSE OF DELEGATES

Herbert L. Bryans, M.D., Delegate ..... *Pensacola*
Herbert E. White, M.D., Alternate ..... *St. Augustine*
(Terms expire Dec. 31, 1940)

Meredith Mallory, M.D., Delegate ..... *Orlando*
Homer L. Pearson, M.D., Alternate ..... *Miami*
(Terms expire Dec. 31, 1941)

(Address all communications to Box 1018, Jacksonville)

The Journal of the Florida Medical Association, Inc.

(Owned and published by the Florida Medical Associaton, Inc.

Accepted for mailing at special rate of postage provided for in Section 1103, Act of Congress of October 3, 1917; authorized October 16, 1918

Published monthly at Jacksonville, Florida. Price $3.00 a year. Single numbers, 30 cents

This Journal is not responsible for the opinions and statements of its contributors

Address Journal of the Florida Medical Association, Inc., Box 1018 Jacksonville, Fla. Telephone 5-0577

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PHYSICIANS NEEDED FOR ARMY SERVICE

The physician, like every other American, has become actively interested in our national security and stands ready to contribute his services as required for military preparedness.

The immediate problem in this connection is one that concerns the War Department, and primarily the young physician. The War Department must procure sufficient additional personnel from the medical profession to augment the medical services of the Regular Army as the various increases are made in the strength of the Regular Army, as authorized by Congress to meet the partial emergency. The young physician is especially concerned because it is usually advantageous, and is often more convenient for him to serve with the Army.

Present plans of the War Department are designed to make service attractive and instructive for the young physician. If the physician holds a Medical Corps Reserve commission he can be ordered to active duty if he so requests. If he does not hold a commission, but is under 35 years of age and is a comparatively recent graduate of an accredited school, he may secure an appointment in the Medical Corps Reserve for the purpose of obtaining extended active duty for a period of one year or longer. Duty is given at General Hospitals, Station Hospitals, and with Tactical Units, and embraces all fields of general and specialized medicine and surgery. Excellent postgraduate training is obtainable in connection with Aviation Medicine. After serving 6 months of active duty in the continental United States, a Reserve Officer may request duty in Hawaii, Panama, or other United States territories and possessions. The initial period for duty is for one year and yearly extensions are obtainable thereafter until the international situation becomes more clarified and our domestic military program becomes stabilized.

Many young doctors who have served with the Army on extended active duty have taken the competitive examination for entrance into the Medical Corps of the Regular Army. Extended active duty affords an excellent opportunity for the physician to observe modern military medicine and the facilities that exist for a complete and comprehensive medical practice.

Pay is according to rank, and, including subsistence and quarters allowances for an officer with dependents, amounts to an annual sum of $3,905 for a Captain and $3,152 for a First Lieutenant; or, without dependents, to an annual sum of $3,450 for a Captain and $2,696 for a First Lieutenant. In addition, reimbursement is made for travel to duty station and return.

Further information may be obtained by writing to The Surgeon General, U. S. Army, Washington, D. C.

DISTRICT MEETINGS "A," "B," AND "C"

Arrangements have been completed for the first series of three medical district meetings. Dr. Robert B. McIver, chairman of the Council, has completed the programs for the scientific sessions. The local committees on arrangements for the entertaining societies have met with Dr. Stewart Thompson, managing director of the Association, and completed plans for entertainment of the doctors, guests and ladies. Printed programs will be mailed from the Association's home office to all the members of the three districts a week or ten days in advance of the meetings.

This will be the fourth annual meeting in

each medical district. The attendance has increased steadily from year to year as the doctors realize that this is a splendid opportunity to meet their colleagues informally and to enjoy a program of good scientific papers, which this year includes a guest speaker from some other medical district in the state. It is also an annual opportunity for the members to meet personally the officers of the State Association. Following are the places and dates of each of the three medical district meetings and the names of members of the local committees on arrangements.

DAYTONA BEACH—October 3. Local committee on arrangements: Drs. Ludo von Meysenbug, chairman; George M. Green, J. H. Rutter and R. L. Miller.

LAKE CITY—October 4. Local committee on arrangements: Drs. T. H. Bates, chairman; W. S. Nichols and Harry S. Howell.

PENSACOLA—October 5. Local committee on arrangements: Drs. J. M. Hoffman, chairman; Herbert L. Bryans and J. J. McGuire.

FUNCTIONS OF A. M. A. PREPAREDNESS COMMITTEE

ORGANIZATIONAL SETUP AND THE ACTIVITIES OF THE NATIONAL GROUP

The functions of the National Committee on Medical Preparedness of the American Medical Association, together with those of state chairmen and the names of the latter, are reported in the Medical Preparedness Section of *The Journal* of the Association for Aug. 3. Discussing the national committee, the report says:

This committee was created by the House of Delegates of the American Medical Association to cooperate with the Advisory Commission on National Defense, the Army and Navy Medical Corps, the United States Public Health Service and all other federal agencies in preparing our nation medically to meet any emergency. The functions of the Committee include the following activities:

1. Meetings devoted to consideration of problems involved in providing medical personnel for military, naval and civilian needs.
2. Consideration of the provisions of medical personnel for physical examination, particularly of young men who are conscripted for medical service, young men assigned to vocational training, persons on relief and those concerned with war industries.
3. Consideration of economic problems including financial arrangements, leaves of absence, part-time service and other factors associated with civilian medical services.
4. To maintain contact and to represent the Association in conferences with the Surgeon Generals of the Army, Navy and Public Health Service and, when necessary, with other governmental agencies.
5. To maintain contact with the state chairman on medical preparedness.
6. To encourage and coordinate the activities of the various state chairmen for the National Committee on Medical Preparedness.
7. To formulate instructions for the guidance of state chairmen.
8. To review and to approve or disapprove recommendations received from state chairmen.

ACTIVITIES OF STATE CHAIRMEN AND COMMITTEES ON MEDICAL PREPAREDNESS

The functions of the state chairmen for the State Committees on Medical Preparedness are an extension of the functions initiated and developed by the National Committee. The National Committee on Medical Preparedness includes representatives located in all of the various Army Corps areas and Naval districts. The state chairmen for the Committee on Medical Preparedness maintain contact with other state chairmen in their vicinity through the corps area representative of the national chairman and maintain contact also with the headquarters office of the American Medical Association, which acts as headquarters for the National Committee on Medical Preparedness.

The functions of a state chairman include the following:

1. Contact with and coordination of the activities of state, county and district medical societies.
2. Cooperation with county medical societies in securing completion and return of the questionnaire on personal information.
3. To establish mechanisms for securing supplementary information to the questionnaire when necessary.
4. To organize a state committee on medical preparedness to be composed of the president and the secretary of the state medical society, the state chairman for the Committee on Medical Preparedness and ex officio the member of the Committee on Medical Preparedness of the American Medical Association within whose corps area the state is located and such other members as this group may select.
5. To assist in the organization of county committees on medical preparedness.
6. To invite local and state health authorities to participate in the work of the program particularly in the matter of civilian health.
7. To arrange for the dissemination of information on medical preparedness to the groups that are concerned with any particular matter.
8. To assist in the verification of the qualifications of physicians desired for service in the Army, industry, special physical examinations and other special work necessary for national defense.
9. To report to the Committee on Medical Preparedness a list of the names of physicians from each county of the state whose services are believed to be necessary for the maintenance of civilian health and who should, in the opinion of the state committee on medical preparedness, be exempt from military service.

STATE CHAIRMEN

ALABAMA—Dr. J. N. Baker, 519 Dexter Ave., Montgomery.
ARIZONA—Dr. Charles S. Smith, Nogales.
ARKANSAS—Dr. W. R. Brooksher, 602 Garrison Ave., Fort Smith.
CALIFORNIA—Dr. Philip K. Gilman, 2000 Van Ness Ave., San Francisco.
COLORADO—Dr. John W. Amesse, 227 16th St., Denver.
CONNECTICUT—Dr. George M. Smith, Pine Orchard.
DELAWARE—Dr. William H. Speer, 917 Washington St., Wilmington.
DISTRICT OF COLUMBIA—Dr. F. X. McGovern, 1835 I St., N. W., Washington.
FLORIDA—Dr. Edward Jelks, P. O. Box 1018, Jacksonville.

GEORGIA—Dr. Edgar H. Greene, 478 Peachtree St., N. E., Atlanta.
IDAHO—Dr. J. N. Davis, 204 4th Ave. E., Twin Falls.
ILLINOIS—Dr. Harold M. Camp, 224 S. Main St., Monmouth.
INDIANA—Dr. Charles R. Bird, 23 E. Ohio St., Indianapolis.
IOWA—Dr. T. F. Suchomel, 305 2nd St., Cedar Rapids.
KANSAS—Dr. F. L. Loveland, 109 W. 9th St., Topeka.
KENTUCKY—Dr. Arthur T. McCormack, 620 S. 3rd St., Louisville.
LOUISIANA—Dr. C. Grenes Cole, 921 Canal St., New Orleans.
MAINE—Dr. John G. Towne, 48 Elm St., Waterville.
MARYLAND—Dr. Charles W. Maxson, 827 N. Charles St., Baltimore.
MASSACHUSETTS—Dr. Alexander S. Begg, 8 Fenway, Boston.
MICHIGAN—Dr. Burton R. Corbus, 110 Fulton St., Grand Rapids.
MINNESOTA—Dr. F. L. Smith, 102 2nd Ave. S. W., Rochester.
MISSISSIPPI—Dr. T. M. Dye, Box 295, Clarksdale.
MISSOURI—Dr. Robert Mueller, 3115 S. Grand Ave., St. Louis.
MONTANA—Dr. Herbert T. Caraway, 115 N. 28th St., Billings.
NEBRASKA—Dr. A. A. Conrad, Crete.
NEVADA—Dr. C. W. West, 120 N. Virginia St., Reno.
NEW HAMPSHIRE—Dr. Deering G. Smith, 77 Main St., Nashua.
NEW JERSEY—Dr. Charles H. Schlichter, 556 N. Broad St., Elizabeth.
NEW MEXICO—Dr. L. B. Cohenour, 221 W. Central Ave., Albuquerque.
NEW YORK—Dr. Samuel J. Kopetzky, 71 E. 80th St., New York.
NORTH CAROLINA—Dr. F. Webb Griffith, Lake View Park, Asheville.
NORTH DAKOTA—Dr. L. W. Larson, 221 5th St., Bismarck.
OHIO—Dr. Harry V. Paryzek, 25 Prospect Ave. N. W., Cleveland.
OKLAHOMA—Dr. Henry H. Turner, 1200 N. Walker St., Oklahoma City.
OREGON—Dr. Charles E. Hunt, 132 E. Broadway, Eugene.
PENNSYLVANIA—Dr. Charles H. Henninger, 500 Penn Ave., Pittsburgh.
RHODE ISLAND—Dr. Halsey De Wolf, 199 Thayer St., Providence.
SOUTH CAROLINA—Dr. Edgar A. Hines, Seneca.
SOUTH DAKOTA— Dr. William Duncan, Webster.
TENNESSEE—Dr. W. C. Dixon, 706 Church St., Nashville.
TEXAS—Dr. Holman Taylor, 1404 W. El Paso St., Fort Worth.
UTAH—Dr. John F. Sharp, 75 S. Main St., Salt Lake City.
VERMONT—Dr. Benjamin F. Cook, 46 Nichols St., Rutland.
VIRGINIA—Dr. Hugh H. Trout, 1301 Franklin Road, Roanoke.
WASHINGTON—Dr. Raymond L. Zech, 509 Olive Way, Seattle.
WEST VIRGINIA—Dr. Benjamin H. Swint, 240 Capitol St., Charleston.
WISCONSIN—Dr. R. E. Fitzgerald, 2750 N. Teutonia Ave., Milwaukee.
WYOMING—Dr. George H. Phelps, 1606 Capitol Ave., Cheyenne.
PUERTO RICO—Dr. O. G. Costa-Mandry, Dept. of Health, San Juan.

MEDICAL LICENSES GRANTED

Dr. W. M. Rowlett, Secretary of the State Board of Medical Examiners, reports that out of 81 applicants who took the Board's examination on June 16 and 17, 78 successfully passed the examination and were issued licenses on July 23.

The following are the names and addresses of the successful applicants:

Adler, Lawrence; Brooklyn, N. Y., (Long Island College).
Ayer, Orion Thomas (Col.); St. Louis, Mo., (Meharry).
Ayres, Wm. B.; Miami Valley Hospital, Dayton, O., (Northwestern).
Barton, Charles T.; Moultrieville, S. C., (Cincinnati).
Beardsley, Leon A.; Panama City, (Cornell).
Bell, Bernard T.; Coral Gables, (Tennessee).
Bellville, Charles George; Emory, Ga., (Emory).
Black, Thomas Claiborne; Orlando, (Kansas).
Blank, Henry S.; Lake City, (George Washington).
Brannan, Max; Merced, Calif., (Tulane).
Breitbart, Raymond; Kissimmee, (Michigan).
Browning, John Rogers; Cotton Valley, La., (Tenn.).
Capland, Lewis; Miami Beach, (Rush).
Carter, Albert Wesley, Jr.; Atlanta, Ga., (Georgia).
Childs, Lincoln Bliss (Col.); Nashville, Tenn., (Meharry).
Cirlin, Marcus B.; Chicago, Ill., (Illinois).
Clay, Charles L.; Miami, (Columbia).
Clower, James Wesley, Jr.; Atlanta, Ga., (Georgia).
Collins, Cecil Curtis, Jr.; Baltimore, Md., (Duke).
DeVaughn, Nathan M.; Montezuma, Ga., (Georgia).
Dickens, Henry Bailey, Jr.; Bristol, Ga., (Georgia).
Dietrich, James F.; Atlanta, Ga., (Indiana).
Eller, Joseph J.; New York, N. Y., (Fordham).
Fields, J. Allen; Sanford, (Louisiana).
Flanagin, Wiley Stewart; Waycross, Ga., (Georgia).
Fleet, Joel; Live Oak, (Tulane).
Furey, Thomas Edward; Detroit, Mich., (Wayne).
Gammage, F. V.; Chattahoochee, (Starling).
Goodman, Bernard; Mayview, Penn., (Temple).
Green, Daniel; Jacksonville, (New York & Flower).
Greene, Leon N.; Brooklyn, N. Y., (Columbia).
Halford, Richard; Miami, (Georgia).
Hallstrand, Harold O.; Milwaukee, Wis., (Northwestern).
Harris, Willis W.; Bee Ridge, Fla., (Duke).
Haverfield, William Tracy; Jacksonville, (Ohio).
Heath, R. W.; St. Petersburg, (Georgia).
Hinman, Louis F.; St. Petersburg, (Jefferson).
Jahn, Julius Robert; Winter Haven, (Temple).
James, Lorenzo, Jr.; West Palm Beach, (Tennessee).
Lippman, Morris C.; New York, N. Y., (Erlanges, Germany).
Loenholdt, Erich; Daytona Beach, (Minnesota).
Lombardo, Samuel S.; Pensacola, (Illinois).
Lytton, Louis G.; Cleveland Heights, O., (Georgetown).
McQuire, John F.; Tampa, (Georgetown).
Martin, David Martin; West Palm Beach, (Duke).
Martin, Wilbur C. (Col.); St. Louis, Mo., (Meharry).
Mayer, Robert Albert; Cincinnati, O., (Cincinnati).
Meehan, Mat P.; Miami, (Georgetown).
Merritt, James White, Jr.; Miami, (Emory).
Michaels, J. P.; Orlando, (Tulane).
Nadler, Alfred J.; Brooklyn, N. Y., (Albany).
Overstreet, Ralph M.; Miami, (Louisville).
Parks, Lorenzo Lynn; Jacksonville, (Vanderbilt).
Powers, Leander K.; Guyton, Ga., (Georgia).
Rawls, Katrine; Augusta, Ga., (Georgia).
Reckson, Murray M.; Brooklyn, N. Y., (Maryland).
Ritch, Una Fain; Jesup, Ga., (Georgia).
Rossi, John S.; Miami, (Long Island).

Rubin, Harold S.; Brooklyn, N. Y., (New York).
Sackett, Walter W.; Miami, (Rush).
Schanck, George P. (Col.); Orlando, (Meharry).
Sears, Warren H.; Springfield, Mass., (Johns Hopkins).
Shaw, Vaughan A.; Gainesville, (Pennsylvania).
Stamps, Walker; Raleigh, N. C., (Harvard).
Stewart, Roy Allen; Atlanta, Ga., (Emory).
Sullivan, Francis M.; Norcross, Ga., (Emory).
Teagarden, Elmer J.; Orlando, (Johns Hopkins).
Todd, James W.; Belton, S. C., (Emory).
Truog, Clarence P.; Miami, (Minnesota).
Wager, Harold Edmond; Atlanta, Ga., (Emory).
Walker, Jean; Fort Lauderdale, (New York).
Weil, Leonard L.; Miami Beach, (Illinois).
Westermann, J. J., Jr.; New York, N. Y., (Columbia).
Whitney, H. H.; Dallas, Tex., (Rush).
Whitney, Karl Roberts; Daytona Beach, (Tufts).
Wilensky, Louis A.; Jacksonville, (Emory).
Williams, J. Maxwell; Lakeland, (Tulane).
Wynegar, David E.; Chattahoochee, (Nebraska).

BIRTHS, MARRIAGES AND DEATHS

BIRTHS

Dr. and Mrs. M. B. O'Kelley of Leesburg announce the birth of a son, Marion B., Jr., on May 7, 1940.

MARRIAGES

Dr. Harold Rand of Miami and Miss Gertrude Goodman of Englewood N. J., were married at Atlantic Beach, L. I., June 16.

* * *

Dr. Gladstone E. Francisco and Miss Beatrice Klitchko of Miami were married at Miami Shores on June 19.

DEATHS

Dr. Benjamin F. Eckman of Miami died on July 10, 1940.

STATE NEWS ITEMS

The following Florida doctors attended the Southern Pediatric Seminar, held recently in Saluda, N. C.: Fred D. Bartleson, Ft. Myers; William H. Ball, Jacksonville; Everett C. Crouch, Jasper; Laurie J. Arnold, Jr., Lake City; S. A. Clark, Lakeland; William P. Rice, Orlando; Robert C. Black, Plant City; James L. Massey, Quincy; J. D. Parker, Stuart.

* * *

All members of the Florida Medical Association are cordially invited to attend the meeting of the Southeastern Surgical Congress, which will be held at the Jackson Memorial Hospital, Miami, Saturday, August 31, 1940, at 9:30 a. m. An excellent scientific program has been arranged. This is a splendid opportunity for a Labor Day holiday. The preliminary program may be found in your July Journal, page 37.

The official dates for the 1941 annual meeting of the Florida Medical Association are April 28, 29 and 30. These dates were set by the Executive Committee of the Association and confirmed by the Duval County Medical Society.

* * *

At the annual meeting of the Chattahoochee Valley Medical Association, held in Atlanta the early part of July, Dr. Herbert E. White of St. Augustine was elected second vice-president and Dr. Robert B. McIver of Jacksonville was elected secretary-treasurer. The 1941 annual meeting of the organization will be held in Jacksonville, July 8 to 10. The following Florida doctors attended the Atlanta meeting:

J. S. Turberville, Century; J. M. Dell, Jr., Gainesville; James L. Borland, L. Y. Dyrenforth, Karl Hanson, Raymond King, J. G. Lyerly, Robert B. McIver, C. C. Mendoza, Kenneth Morris and F. J. Waas, Jacksonville; Herbert E. White, St. Augustine.

* * *

Dr. Julius R. Pearson of Miami Beach is spending two months studying in clinics at Boston and New Haven, and vacationing in the New England States. He expects to return October 1.

* * *

Colored reproductions of Dean Cornwell's new painting, "Osler at Old Blockley," suitable for framing, may be obtained free of charge from John Wyeth & Brother, Inc., 1600 Arch Street, Philadelphia, Pa. Send for your picture today. Refer to page 106 of this issue for a further description of this beautiful picture.

MEDICAL DISTRICT MEETINGS

Daytona Beach (C) . Oct. 3
Lake City (B) . . . . . Oct. 4
Pensacola (A) . . . . . Oct. 5
Dunedin (D) . . . . . Oct. 31
Ft. Pierce (E) . . . . Nov. 1
Miami (F) . . . . . Nov. 2

The American Board of Ophthalmology will conduct only one written examination during 1941. This will be held in various cities throughout the country on March 8. Candidates enrolled in the Preparatory Group who have been advised that they will be eligible for examination during 1941 should make application at once to take this written examination. Any one who plans to take the examination during 1941 should write immediately for formal application blanks to the American Board of Ophthalmology, 6830 Waterman Avenue, St. Louis, Missouri.

* * *

Dr. C. J. Bible of Miami returned the early part of July from an extended trip to the West Coast, including Yellowstone Park and the San Francisco Fair.

* * *

Dr. George E. Miller of St. Petersburg spent five weeks in New York State, visiting hospitals and clinics, after attending the A. M. A. meeting.

* * *

Dr. Steve R. Johnston of Ft. Pierce has opened offices at 211 N. Second Street. Doctor Johnston formerly practiced in Okeechobee.

* * *

Dr. and Mrs. John Allen Johnston of Ft. Lauderdale celebrated their thirtieth wedding anniversary on July 10.

* * *

Florida doctors who attended the meeting of the American Proctologic Society in Richmond, June 9 to 11, were: Leigh F. Robinson, Ft. Lauderdale; Ralph F. Allen, Claude G. Mentzer, Miami; and Charles E. Hebard, St. Petersburg.

* * *

Dr. James J. Nugent of Miami recently spent two months visiting the Mayo Clinic and urological clinics in St. Louis, Chicago and Cincinnati. Doctor Nugent visited his parents in Montana before returning home.

* * *

Dr. W. T. Simpson of Winter Haven visited clinics in the New Charity Hospital, New Orleans, during July. Doctor Simpson extended his trip through the West and to California.

Dr. W. M. Rowlett of Tampa and Dr. H. D. Van Schaick of Jacksonville were recently reappointed by Governor Fred Cone for four-year terms as members of the State Board of Medical Examiners. Doctor Rowlett has served on this Board for the past 23 years.

* * *

Florida doctors who attended the meeting of the American Society of Clinical Pathologists in New York, June 6 to 10, were Drs. F. H. Dieterich, Miami; V. M. Johnson, West Palm Beach; and C. E. Royce, Jacksonville.

* * *

In the May Journal, page 562, missing numbers of Transactions and Journals of the Florida Medical Association were listed. Dr. J. Harris Pierpont of Pensacola, past president of the Association, on reading the notice, immediately forwarded a cloth-bound copy of the Transactions for 1900 and a paper covered copy of the Transactions for 1899. The officers and members of the Association are indebted to Doctor Pierpont for this valuable contribution of old records that have been missing from our library for many years.

BENJAMIN FRANK ECKMAN

Dr. Benjamin F. Eckman died at his home in Miami on July 10, 1940, at the age of 72, following an extended illness.

Doctor Eckman received his medical degree from the Ohio Medical College in 1889. He practiced in the Cincinnati district for several years. In 1921 he took the examination of the State Board of Medical Examiners in Florida and began his practice in this State. For some time he was located in Miami but later moved to Homestead, dividing his time between that city and Coral Gables. He is survived by a daughter, Miss Patty Eckman of Cincinnati, and a brother Dr. W. Guy Eckman of Covington, Ky. The burial was held in Cincinnati.

Doctor Eckman was a surgeon of fine ability, respected and admired by his colleagues. He was an honorary member of the Dade County Medical Society and the Florida Medical Association, and a member of the American Medical Association.

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MARION ERNEST QUINA

Dr. M. Ernest Quina, 57, who practiced in Pensacola for 34 years as an eye, ear, nose, and throat specialist, died at the Pensacola Hospital on June 12, following an illness of several months.

Born in Pensacola in 1882, Doctor Quina was the son of the late Mr. and Mrs. Marion A. Quina. He received his medical training at Tulane University from which he graduated in 1905, at the Eye, Ear, Nose and Throat Hospital of Chicago, and later at Vienna where he did special work.

In 1906 Doctor Quina began the practice of his specialty in Pensacola. He served as physician in both the Army and the Navy during the World War. His Army service was brief, as in 1917 he entered the Navy as a lieutenant in the Medical corps and was assigned to the hospital at the Naval Air Station in Pensacola. He also served as specialist on the staff of the Pensacola Hospital and for the Louisville & Nashville and Frisco railroads. He was a former president of the Frisco Medical Society and was a member of the American, Southern, and Florida Medical Associations and of the Escambia County Medical Society. He was a member of the Rotary club, the Pensacola Country Club, the Knights of Columbus, and a former member of the Elks' lodge.

Doctor Quina married Miss Grace Reid of Philadelphia who survives him. Other survivors include two sons, Marshall and Clarence, and a daughter, Corinne, of Pensacola; two brothers, Albert and Willie Quina, of Pensacola; and two sisters, Mrs. George Prindible of Harrisburg, Pa., and Mrs. Richard H. Turner of Pensacola, besides nieces and nephews.

COMPONENT COUNTY SOCIETIES

DADE

On July 3 the Dade County Medical Society met in the Sunshine Room of the Ingraham Building. A symposium on "Superficial Infections" comprised the scientific program, presented as follows:

"Surgical Treatment"— Dr. C. Larimore Perry.

"Medical Treatment"—Dr. Paul K. Jenkins.

"X-ray Treatment"—Dr. Alfred G. Levin.

The discussion was opened by Drs. John C. Turner and Gerard Raap.

* * *

DE SOTO-HARDEE-HIGHLANDS-CHARLOTTE-GLADES

Members of the DeSoto-Hardee-Highlands-Charlotte-Glades County Medical Society held their regular meeting at the Hotel Simmons, Wauchula, on the evening of July 9. Attending this meeting were: Drs. G. F. Highsmith and C. H. Kirkpatrick of Arcadia; G. S. McKnight of Avon Park; H. E. Boorom and H. V. Weems of Sebring; M. A. Collier, M. C. Kayton, and B. D. Spears of Wauchula.

* * *

PINELLAS

Two papers were presented at the meeting of the Pinellas County Medical Society held on the evening of July 5 at the Shrine Club, St. Petersburg: "Splenomegalia — Case Report" by Dr. W. M. Davis, and "Cholecystitis" by Dr. H. G. Morin.

At the second meeting of the month, held on July 19, Dr. E. B. Campbell was the principal speaker. His subject was "Excretory Function of the Small Intestine in Renal Insufficiency."

* * *

POLK

The Polk County Medical Society held its final meeting of the summer season at the Lake Region Hotel in Winter Haven, Wednesday, June 12. Dr. R. D. Thompson, head of the State Tuberculosis Sanatorium at Orlando, was the principal speaker. Dr. Henry Fuller of Mulberry, president of the Society, presided.

The next meeting of the Society will be held in October.

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JAMES H. RANDOLPH, M. D.
Resident Neuropsychiatrist
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*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

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ABSTRACT DEPARTMENT

Members of the Florida Medical Association who have had articles published in out-of-state medical journals are requested to forward such journals or reprints to Box 1018, Jacksonville, for abstracting in this department.

Paralytic Ileus and Congenital Renal Deformity, DYRENFORTH, LUCIEN Y., and MORRIS, KENNETH A., Jacksonville, *Urol. & Cutan. Rev.* 44: 96-99 (Feb.), 1940.

Previous reports connecting renal dysplasia with ileus have been predicated on the basis of kidney insufficiency or disturbed metabolism. The authors, in an analysis of their three cases, suggest a different approach to the problem, namely, reflex influences on the physiological processes of the intestines from the dysplastic kidneys due to neurological association of these organs through the "plexuses of Meissner and Auerbach, or by way of the celiac ganglion or through the mesenteric neurovascular distribution or all of these."

Differential diagnosis of this specific type is dependent largely upon the recognition of the adynamic nature of the obstruction and comprehensive elimination of all possible causative factors of this type of ileus.

Contrary to previously reported cases of this type, the authors' patients were all 30 or under and showed no arteriosclerotic changes. Two of these cases followed trauma and a third, cesarean section; and all possessed marked kidney deformities.

Epilepsy from the Neurosurgical Standpoint, LYERLY, J. G., Jacksonville, *South. Med. & Surg.* 101: 415-418 (September), 1939.

Epilepsy may be caused by lesions amenable to surgical treatment. Therefore, a careful neurological study of all types of convulsions is most important.

Epilepsy beginning in adult life should be assumed to be due to some organic change until proved otherwise. Brain tumor must be ruled out.

Removal of slow growing tumors, cardical scars and cysts may bring improvement in cases that have gone on for years as idiopathic epilepsy. After such an operation all lesions responsible for epilepsy must have a medical regimen carried out for a long time to decrease cerebral irritability.

Nutritional Anemia and Its Prevention, ABBOTT, OUIDA DAVIS, and AHMANN, CHESTER F., Gainesville, U. of Fla. Bulletin 328, November, 1938.

Abbott and Ahmann, in a brochure intended primarily for the laity, call attention to the prevalence of nutritional anemia in Florida and ascribe the condition mainly to an iron deficient diet which may in turn be due to one of several factors. Among these are "the high carbohydrate diets necessitated by poverty or custom, the limitation of a small farm's products, intensive cultivation of cash crops and ignorance of food values."

Peculiarly, while the nutritional anemias may be prevented by adequate diet, yet after they have developed, diet alone is of relatively small value in their cure. Iron, as such, and preferably the inorganic salts, must be given in adequate amounts in order to reproduce normal hemoglobin levels.

BOOKS RECEIVED

Acknowledgment of books received will be made in this column and this will be deemed by us a full compensation to those sending them. A selection will be made for review, as expedient.

THE ESSENTIALS OF APPLIED MEDICAL LABORATORY TECHNIC, WITH DETAILS OF HOW TO BUILD AND CONDUCT A LABORATORY IN HOSPITAL OR OFFICE AT SMALL COST. By J. M. Feder, M. D., Director of Laboratories and of The Allergy Clinic, Anderson County Hospital, Anderson, S. C. In a very lucid way the author describes many economies which can be practiced by the small laboratory or the doctor who does not have access to a large laboratory without curtailing efficiency. Doctor Feder's book tells in detail how satisfactory substitutes for many costly articles of equipment may be provided for a few dollars or cents. It also offers the student technician the essential features of laboratory technic in plain terms. Fabrikoid, Pp. 234, profusely illustrated. Price $5.00. North Carolina: Charlotte Medical Press, 1940.

TRAPPING THE COMMON COLD. By George S. Foster, M. D. A book written for the laity, elementary in diction and content, covering such topics as The Value of Sleep, Influence of Diet, Posture and Body Resistance, Proper Clothing. Fabrikoid, Pp. 125. Price $1.25. New York: Fleming H. Revell Co.

ACCEPTED FOODS AND THEIR NUTRITIONAL SIGNIFICANCE. By Council on Foods of the American Medical Association. In this book are described the products which were on the list of accepted foods on September 1, 1939. In addition to descriptions of the products, the book provides the Council's opinion regarding many topics in the field of nutrition. It includes the rules and regulations of the Council and general decisions pertaining to food composition and nutritional claims which may appear in advertising of food products. Cloth, Pp. 492. Chicago: American Medical Association.